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R. Holmes

1962 - 1964

Alaska

Journal

1962: Alaska: Barrow, Barter Island
[feeding observations, census plot,
insect sampling]

1963: Alaska: Barrow, Cape Thompson
Canada: Banks Island
Alaska: Barrow [insect sampling]

1964: Alaska: Barrow

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1962: Alaska: Barrow, Barter Island

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28 May Barrow, Alaska

Arrived at 1000 at Barrow International airport. The general appearance of the snow cover in the vicinity of ARL + Ikroavik was that spring is late in coming. Snow is still covering most areas - except for patches of ground near Voth's Area + near the dewline site. Spent the morning getting settled + straightening up the lab. [2 Golden Plover in Fingerprint on 26 May - Cade].

In the afternoon - drove to the beach ridge, central marsh, + gasline ridge. The tops of these elevated areas are beginning to clear but even here the exposed areas are glazed with a layer of ice. Very little sign of lemming activity was noted; 1 Glaucous Gull was seen.

After supper, drove to Voth, Ikroavik, Ikroavik ridge, Ikroavik + Footprint Lake. Snow conditions in the area are about the same as central marsh except there are a few more open grass-covered ridge tops. Actually, the snow does not seem to be very deep + several warm days covered cause quite a change. Birds: A. Longspurs; Snow Bunting - 15+; Wheatear - 2; Sandhill Crane 3; Glaucous Gull - 40+⁻⁴⁰⁺; 2 Snow Owls.
^{- mostly near shore}

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28 May Barrow, Alaska

The wangan at Ikroavik was checked. It had been broken into during the winter & numerous supplies were missing.

No shorebirds seen today. Only ones reported are the 2 Golden Plovers seen by Cade on 26 May.

29 May Barrow, Alaska

Weather cloudy with light snow falling all during the day. Wind from N+E in the morning - shifting to SE during the afternoon & evening. Snow conditions seem about the same; more exposed areas were found on the high bluffs along the shore of Elson Lagoon below the duck camp at Bernice & Otkipik slough. The permafrost depth varies from 0 to $1\frac{1}{4}$ " (in the mossy areas).

0800-1200 - cleaning up lab & skinning waterfowl.

1230-1630 - Drove to Elson Lagoon: Longspurs (L.L.); Snow Buntings (S.B.); Ruddy Turnstones (R.T.); Pectoral Sandpipers (P.S.); Red-backed (R.B.) and Baird (B.S.) Sandpipers, Golden Plovers. Drove across Beach Ridge (sev. ♂ L.L.) to Voth area & then back to camp. 1 R.B. & sev. LL seen & 1/2 heard in this area.

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29 May BARROW, ALASKA

Several large (100+) flocks of Eiders - most ♂♂ were seen flying over the tundra near the shore of Elson Lagoon - so. of the duck camp. (Common + King were identified) Continued snowing until midnight - at which time most of the old snow + roadway were covered with $\frac{1}{2}$ of powdery snow.

30 May BARROW, ALASKA

0800 - 1200. Drove to bluffs along Elson Lagoon.

Weather clear + calm. Birds: 3 Ruddy Turnstones, flock of 7 Dunlins, 3 G. Plover, sev. pr. Longspurs + buntins; 1 Knot; 300 Eiders (200 ♂♂ - 130 of which were common; 70 - King); 1 Glaucous Gull

1330 - 1730. Drove to Denali Gate + beyond to the creek which drains into village slough.

1 Redpoll displaying near Britton's area (another was present); 2 ♂♂ Snow Owls; 1 Cliff Swallow; semi-palmated Sca - 6; Rufous-necked Sandpeeps; Longspurs + buntins. Cold wave 3-8 mph) picked up in the NE during the afternoon.

By this afternoon - The snow was really starting to melt - the ridgy areas near (both) Aler were almost clear of snow; Goshute ridge was $\frac{1}{2}$ clear + the snow seemed to be going fast. The hills seem to like the grassy slopes + ridges where are first exposed - rather than the tops of high centers.

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30 May Barrow, Alaska

polygons. This applies particularly to shorebirds
1930-2130. Drove to Uth Area - to check again
on E. ruficollis - could not locate it again.
Tried to record red-bush displays but
recorder gave out!! Sev. RB, S.P., B.S., L.L.
seen. Headed east to gasline ridge + the
beach ridge - the tops both of these are starting
to open up + considerable ground is exposed -
but no birds seen except an occasional
longspur. The birds are only in the grass-sedge
areas. 6 Wt-br. Geese; 2 old squaws

31 May Barrow, Alaska

Spent morning preparing specimens + checking
supplies out of the store room. In the afternoon -
no weasel was available - so I worked
in the lab + had a talk with Drews.
Drove to the beach ridge off the sags -
but weasel broke down + I walked
in. Two glaucous Gulls seen in the
dune area. Weather stayed below freezing
all day - with a cold so-s-e wind
blowing + a low cloud layer. Snow fell
at intervals during the day.

1 June Barrow, Alaska

0800-1200. Drove to bluffs along Elis Lagoon. In
just N. of Whiskey Slough to Dookyeik
slough. Weather overcast with 10 mph E-NE wind.

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1 June BARROW, ALASKA

There are now patches of clear ground 5 to 50' in diameter on the bluffs. There are more less in tundra. & do not extend out (in) to the tundra very far. The top of the beach ridge is also becoming clear - but only a few Longspurs are seen there. Nearly all the shorebirds seen to date - have been in these large bluff areas: 1 Baird Sandpiper, 35⁺, 17 Longspur; 30+ Dunlin - some paired some in flocks; 20⁺ Pectoral Sandpipers (+ 1 ♀); 10 Ruddy Turnstones, pr. of Golden Plover [1 flock of 11 RB, 4 Turnstones, 3 GP + 1 ♂ Pectoral Sdp.].

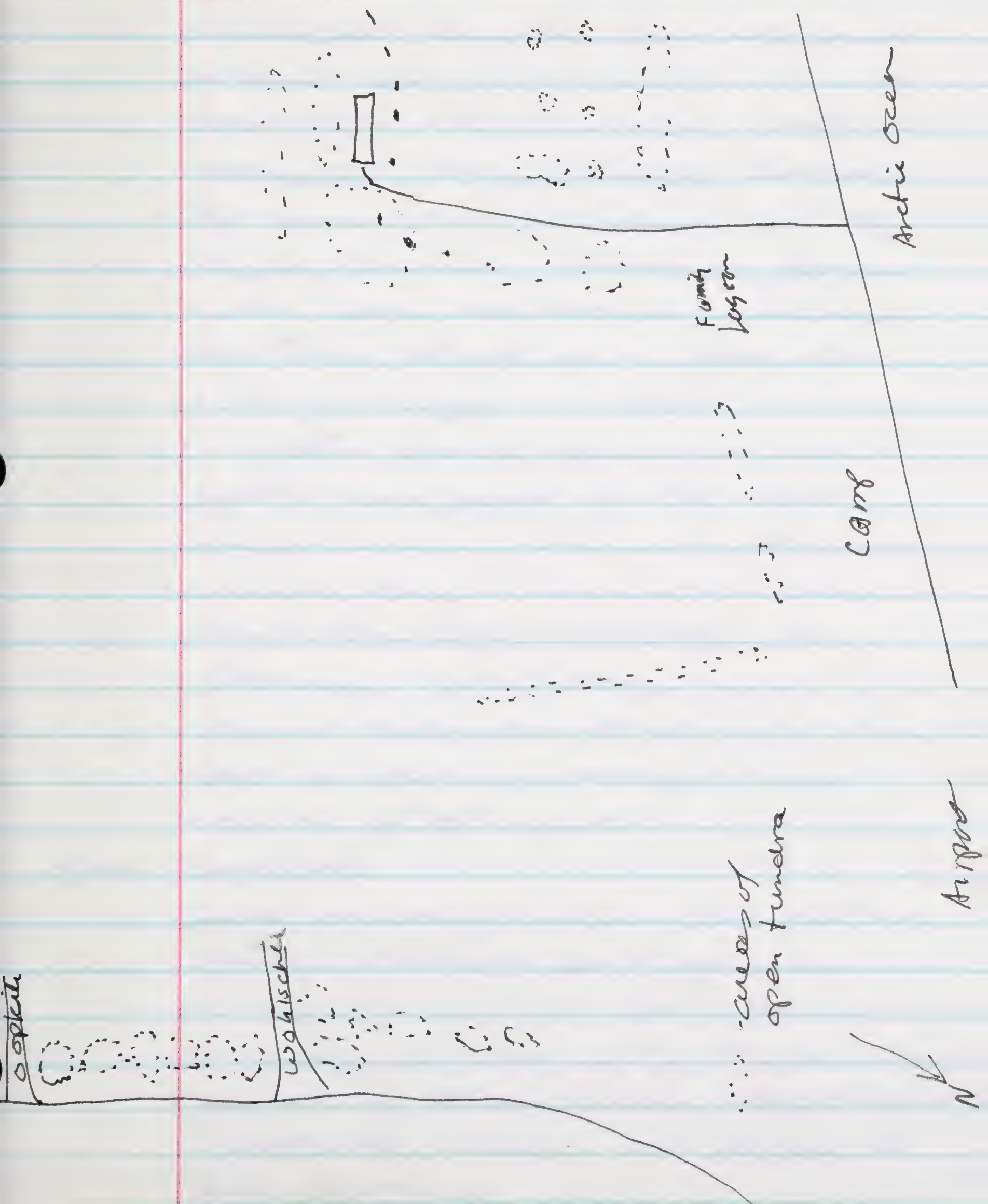
1300 - 1530. - Went to Voth's Area - the high ground on the east side of the Voth road is quite open - 1 area 300 x 100' - this had a flock of 12 Dunlin; 5 Pectoral + 1 Baird. Another baird was seen west of the road near the traplines - as well as at least 3 Sanderling. Scattered pairs of feeding +/or chasing Dunlin were found where there were open ground. 1 White-tr. Goose

See map on the next page for rough sketch of snow conditions:

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1 June BARROW, ALASKA



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2 June Barrow, Alaska

Morning spent in the lab - preparing specimen + checking soil samples. Found edge sample contained SW. Tipped larvae. 1300 - 1630 - Maher + I went to Elson Lagoon between Wohlsehlog + Ookpile Sloughs: Red-tail Sdg - numerous (30±); 4 Pectoral (1 pr) Sdg; 3 Ruddy Turnstones; 5 Pomarine Jaegers; 1 Wh-br Goose; many Longspurs; SW. buntings; 5 Common Eiders. At Voth Ave - 1 Golden Plover, 2 Semi-pal Songers - 4+ Dunlin.

Weather overcast - quite low at times - light (5-10 mph) wind from the north. General warm - snow was getting soft + mushy in places. The snow is going rapid along the Elm Bluffs + Voth Bluffs - but still seen quite deep in center mass + along the beach ridge. The steel are vast areas covered by snow - which are not yet exposed.

3 June Barrow, Alaska

Frosted all morning - but very little of it was sticking. Worked in the lab on specimens + soil samples. 1300 - 1630. Drive to Elson Bluffs - SW. displaying red-birds. 2 ♂ + 1 ♀ Pectoral Sdg., 1 Semi-pal Sdg; 3 Ruddy Turnstones; Longspurs, buntings, 2 Snowy Owls; 1 Sandpiper. Near Voth Ave saw Dunlin + 2 Sandpiper.

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4 June Barrow, Alaska

Drove with Yago. to Voth Ave + then across to
Elson Lagoon - returning via the beach ridge.
Weather was partly clear with bank of
fog lifting + then settling again. Light
easterly wind. 2 Sanderlings near Britton's
Area - several Dunlin, Semi-pal + Turnstones.
Longspurs, Bunting - 1 Snow Owl just S of
Voth's Area - 1 Pectoral, sev. Dunlin +
R. Turnstones on Elson Bluffs.

In the afternoon - returned to Britton-Voth
Area + saw 3 Sanderling (the pair + 1
other - well marked bird); semi-pal +
Dunlin - 1 ♂ Pectoral in Britton's Area.

It seems now that Dunlin are
moving out to areas that are just
becoming exposed. They are seen & heard
now in most places - on Britton's
Area to Voth Ave - on the slope S. + E of Voth
on the west plot + on the open tundra
near Elson Lagoon. Pectorals, just seem to
be getting established with 2-3 semipalm
males near Elson + 1 in Britton's Area.
Semi-pal are distributed along roads,
salt lagoon + Voth Creek - but not anywhere
else. Bards - is still not present in
any numbers. No sign of fuscicollis yet. The G.
Plover are here in small numbers but

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4 June Barrow, Alaska

not yet very numerous. The snow conditions are such that much ground is exposed yet - but what regulates the number of birds moving into the area. - since no observable flocks are seen - there just appears to be birds occupying the available habitat. - must keep this in mind.

5 June Barrow, Alaska

Morning spent in lab working on specimens & stomach contents. In the afternoon, I drove to Britton's & John's Area - where considerable ground is exposed on the bluff over looking the lagoons & now on the ridge that runs west toward the village - located about halfway between D. & U's Areas. - 2 flocks of Kurles & Voted pairs - several pairs of semi-palmated Scaup; 1 Baird Scaup; 1 Golden Plover; 2 pr. A. Tring; 1 Snowy Owl; Longspurs, buntings, 3 Sanderling (with a flock of Dunlin), 3 Pintail, 20 Glaucous Gulls (inc. 2-3rd year birds - 1 coll. by D. A. Muller); Weather - overcast - 10-15 mph North wind blowing - Temperature seemed to stay below freezing all day - all ponds were frozen over - except the large ones where the wind had opened up (very few lagoons were open however). Snow was being blown over exposed tundra &

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5 June Barrow, Alaska

was starting to accumulate. Snow hard & crusty.

Lemming sign is generally poor - over most parts of the tundra - some runway activity & seemingly fresh pellets are seen only occasionally - As yet - only the higher habitats are exposed & when the troughs & lowlands are eventually free of the snow more sign may be found.

The Drum area behind APC seems to be the most productive & to show the best sign. Cack has collected several there & Gulls & Snows Owls are concentrating in the area.

6 June 0800-1200. Weather overcast - light NE wind - cold. All ponds were frozen & snow was crusty. By 1100. many ponds were becoming free of ice & snow was softening. On p. 11 of E. again - There is a mark on existing snow conditions today. The top of the Bear Ridge is coming clear of snow - as are all the bluffs along E. side, middle salt lagoon (incl. Driftwood (Area), insect ridge & village sloughs. The Ikroavik plot is still covered - only a few blades of grass are seen poking through at the very highest areas. A patch 40' x 600'

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6 June Barrow, Alaska

es open south of the census plot. Britton's Area: RB,
S.P. - 1 Sanderling, 2 R.T. ; Insect plot - 1 R.B.;
Village Slough Bl-th - sw. RB, sev. S-p. ; 1 ♂ Snow
Owl ; sw. Longspur - ♂♂, chipping ; Shroaith :
RB + white-rumped - south plot ; 1 Pomarine Jaeger
Voth Area : 1 ♂ Pectoral Scp ; sw S-p. Scp.
1300 - 1630. Else Bl-th - No. Wad's chly - 3 gr. RB ;
2 R.T., gr. P.S. Soft Wad's chly → Oot plot:
4 R.T. - flock of 6 ♂ P.S. ; sw. R.B.

7 June Barrow, Alaska

Weather overcast but no wind in the
morning. Light N.W. breeze during the afternoon
with some sunshines. Ponds were thawed
by 0800 - snow became slushy quite fast -
a many areas along the beach ridge +
then became exposed.

0800 - 1700. Voth - Britton Area - 5 Sanderling,
15+ Red-tails ; 2 Baird ; 2 Pectoral ; 20+
Semi-pal ; 1 Golden Plover ; 4 Ruddy Turnstone ;
1 Pipit (collected) ; Longspur + bunticks

1300 - 1700. Beach Ridge (2 RB, 15-p. - along
N. part of ridge - nothing in Pitelke's Plot).

Elsewhere - flock of Pectoral, sev.

RB, sev. R.T., 2 Pomarine Jaegers ;
Longspur + bunticks. 2 Snow

Owls along the beach ridge - 1
near white-rumped - 1 on Pitelke's Plot.

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8 June Barrow, Alaska

Morning spent in lab working on specimens. Sullivan arrived late in the morning. as did Gary Stevens. Weather overcast - 10 mph East wind blowing. By afternoon - the sky was partially clear - + by evening - the sun was shining brightly (until a thick wet fog settled around 2100). The snow stays hard during the morning + was still crunchy at 1300 - but by 1700 - everything was quite slushy + great amount of snow melted - leaving the top of the beach ridge - part of Elson Lagoon bluffs + Voth area - exposed. 1300-1630. Drove to Elson Lagoon - where sev. lge flocks of Pectorals were seen moving south; 2 Curlew Sandpipers; 1 Golden Plover, sev. Dunlin (no flock - some group 14 [12 pr] however), Longspur-bunting - 2 Long-billed Dowitchers. 1930-2200. Drove to Voth area - watch sev. Red-bellies - heard fog - little seen - Red Phalarope - sev; Old Squaw.

9 June Barrow, Alaska

0800-1200. Drove to Britton's Area - Old Squaw, Pintail, Ruddy Turnstone, 1 pr. Red-bellies - to Insect Ridge - 1 pr. Redback - Polygnotus becomes exposed - ponds all snowed in just the tops of stakes showing. No birds seen between there + Anakti Gatz - bluffs

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9 June Barrow, Alaska

above Vellore Creek - except Longspur + 3 R.
Phalaropes. ^{on bluffs} Semi-pal Sops - 2 pr; - 2 pr
Red-bock; 1 pr. R. Phalarope; large
flocks of Pectorals (49+).

at Ikroavik - The tops of polygons in the
plot are becoming exposed - sev. Red-bock, +
Longspur were seen. The ridge at the south
end was becoming quite clear of snow -
+ again redbock were seen + heard displaying.
Pomarine Jaeger - 2; Snowy Owl - 1; flock of
400 Eiders - flying east over Footprint.

^{1930 - 2130.}
1300 - 1700. Spent the afternoon in + near
Britton's Area: Curlew Sandpiper; Wilson's Phalarope
2 white-rumped Sandpipers; many Red Phalaropes;
1 Sanderling; sev. Dunlin, sev. S-p. Sandpeeps, 1
Barn Swallow, flock of Pectoral Sops; Pintail, Old
squaw; 2 Baldpate; 2 Longspur nests; black turn:
3 Savanna Sparrows

Weather overcast with light (cold) E
wind. Snow melting fast - water standing
on top of ice in Voth Creek - one weasels fell
through at the X-ing. Snow + pond ice slushy.

10 June Barrow, Alaska

0820 - 1200. Britton - Inset + Voth Area: Pectoral,
Barn, Dunlin, + Semi-pal. Sops; 1 Golden Plover,
1 Pomarine Jaeger; 1 Snowy Owl, Longspurs +
dundings. Weather clear + sunny - very cold NW breeze

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10 June Barrow, Alaska

Here, arrived in the late morning. He & I went to Elson Bluffs - No. 1 work block by the beach, The Beach Ridge - Central Marsh - etc. Several flocks of Pectorals, sev. displaying Dunlin & Bairds, Pomarine jaegers - courting; Snows owl, Yellow Wagtail; Sandhill Cranes - 1.

In the evening Hines & I went to Britton's Area & barrel ridge: Black-bellied Plover, Golden Plover, 2 Long-billed Dowitchers; Sev. Dunlin, Semipalm & Pectoral displaying, 4 Stellar Eider, sev. Pintail & Oldsquaw, Red Phalaropes.

Weather today - clear - no wind - temperature up to 60°F - fantastic June day! The snow is going fast - very soft - places & water is running off in streams - The sloughs are all impassable - large areas on top of beach ridge are now exposed.

11 June Barrow, Alaska

Morning spent in the lab & went to airport to meet Dr. Pitelka. In the afternoon - drove Pitelka & Dr. & Mrs. D.S. Farner to the Beach ridge. Late the beach ridge & gasline ridge were checked - as were Voth Area & the insect plots. Weather: clear & sunny - snow going fast - most areas now are opening up - & snow in troughs is very slushy with

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11 June Barrow, Alaska

water underneath - making for difficult walking. The ponds on the hill at the insect plots are starting to open up + will be open completely within a couple of days.

Numerous jaegers (Pomarine) - mostly single + pair - occasionally 3 + 4 - seen flying over Voth Area + Central Marsh. A pair seemed to be settled on the W. side of central marsh - near meadow lakes + another pair in Voth Slough - in both cases - on the bush + ground. - Several Snow Owls seen - Barrow Ridge. The amount of aerial displaying by shorebirds was again quite low.

In the evening - went to Elson Lagoon - north of Woblesley Slough - weather still clear - + snow getting softer + softer - large areas of the B.R. were opened up today: 13 Dowitchers - 2 Curlew Sdps. - 8 Pectoral Sandpipers - R. Phalaropes - many - Golden Plover - Red-tailed Turnstones - Pomarine Jaegers, Red-bellied - Barrow - Semipalm Sdps.

12 June Barrow, Alaska

0900 - 1200 - Went to Elson Lagoon - No. 1 Woblesley - spent all morning watching the 2 Curlew Sandpipers - who were counting. Pomarine Jaeger set; 1 Parasitic Jaeger; Snowy Owls; sev. R. Turnstones

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12 June Barrow, Alaska

Dunkle, Baird, Sem- got leg - 2 Snow Geese flying south along E. lagoon; Pintail & old Squaw in outer marsh ponds. Weather slightly overcast in the morning - clearing but still partly cloudy during the afternoon - warm - light breeze from East. Snow going fast - large area of open water - edge of inner marsh now exposed - area between B.R. & E. lagoon - slushy - ice - Several areas of ^{low} tundra which have been covered - now showing signs of lemmings etc - several lemmings seen. Afternoon spent in same area - evening at Muller's with Pitelke & country notes.

13 June Barrow, Alaska

Worked in lab until 1000 - then went to Insect Plot - took sample - over 3 pools open. Rove around out - across Voth lake (slope) to goshawk ridge to beach ridge - picked up Pitelke, returned to A.R.L. Bird actively released. After lunch - Pitelke & I went back to E. lagoon - could not find E. ferrugineus. In the evening, I went to Britton's Arm - saw semi-palmated & Bairds - 2 pr. R.B. Weather overcast in the morning with strong (10 mph - N.E.) wind - sunny with light breeze during the afternoon & evening.



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14 June Barrow, Alaska

0830-1730. Sullivan & I went to gasline ridge - checked traps - to set up census plot - but last slough was not crossable. Hacked S. & around dry lake - to Shroonish. We censused plot & returned via gasline. Weather clear & sunny - light 5-10 mph NW wind. Snow melts fast - only left now in trough & other protected areas. Much water - collected in all basins & troughs - since the sloughs are not open yet - travel difficult.

In the evening, P. Felke & I went to Bird Ridge & walked across - S. of middle salt lagoon. No wind - sunny & clear.

There has been very little bird activity during the past 4 days & poor weather - displays are heard only occasionally & birds seen quite scattered.

15 June Barrow, Alaska

Morning spent in the lab writing notes & preparing specimens. In the afternoon - I went to the B. Ridge - heading for Elson Lagoon - when I sank & weaved, so by the time I walked back to camp & got another. The afternoon was well shot - except for a big west along the beach ridge. Weather all morning was clear & sunny. Temp

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15 June Barrow, Alaska

in the low sixties - This continued through the early afternoon - but by evening dark clouds & a cold NW wind had settled in & it was cold & foggy by 3000 - with some rain.

In the evening I drove Dr. Klaus Schmidt-Koenig from Duke University to the Beal & Gosline Ridges & checked the area for shorebirds - little activity was noted - apparently since it was raining.

16 June

Skinned the godwits & finished the insect sample #1 during the a.m. In the afternoon - Holmes & I took Pitelka to Beal Ridge & then went to Elm Lagoon - where we found at least 5 Curlew Sandpipers & numerous Red Phalaropes, a flock of Pectoral Sandpipers, sev. Dunlin, sev. R. Turnstone, & sev. Golden Plover, 3 Pectoral Greys & sev. Pomarine Jaegers. Drove across central marsh to Cashe - got Hays & insect plot - where sample #2 was taken. Returned at 1745. In the evening Pitelka & I returned to Elm Lagoon - I saw 2 Curlew Sigs. Weather overcast during the morning but clear & sunny in the afternoon & evening. 10 mph NW wind blowing during most of the day.

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17 June Barrow, Alaska

Beard Ridge checked in the a.m. - several Dunlin & Black-Phoe Pom. & Para. jaegers, Golden Plovers, sev. Snowy Owls. In the afternoon, P. Ittles & I went to Elson Lagoon - located a pair of Curlew Sdg. - After supper, Stevens & I went to Dr. Hen's & used a recorder to record bird songs & locate nests - sev. nests were found but the recorder was not operating properly. Weather overcast with light breeze during the morning & afternoon - sunny & calm in the evening.

18 June Barrow, Alaska

Specimens & insect sample worked in the morning & partially in the afternoon. A short trip was made to Beard Ridge where 5 Snowy Owls & 1 pair of Curlew Sdg. were encountered - as well as sev. dipt. ♂ pectorals & pair of Golden Plovers. In the evening, Sullivan & I checked the live traps - beard ridge & met P. Ittles - spent some time checking the Curlew Sdg. - returned at 11:00 p.m. Weather overcast & NW wind - heavy fog & rain in the evening.

19 June Barrow, Alaska

P. Ittles & I went to B. R. in morning - could not find Curlew Sdg. - due to strong W. wind. Bird activity very low. Afternoon - evening

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19 June Barrow, Alaska

Spent at the lab preparing for trip to Ikroavik.
Weather partly cloudy. 10-20 mph N.W. wind.

20 June Barrow, Alaska

Made final preparations for trip. Hines & I left at 1300 - Arrived at the Ikroavik wannigan at 1430. Set up gler & censused the NWT 40 area from 1530 - 1830. - weather cold, windy & foggy. Birds generally inactive. Walked North of the wannigan to wannigan creek & then toward the lake. Wind had let down & was only blowing 0-5 mph. & fog lifted & birds were more active. Nest-finding increased & it seemed that the birds (particularly phalaropes & Dunlin) returned to their nest more directly & more quickly.

21 June Barrow, Alaska

All day was spent on the Ikroavik plot with bird activity at a minimum - due probably to a 10-15 mph NE wind & occasional fog. Left the wannigan at 1400 - went to the insect plots, took sample #3, & arrived at ARI. at 2015. Weather still overcast & windy.

22 June Pitelka & I spent morning on the beach ridge watching the Curlew Sandpipers. Lab work was done during the ^{early} afternoon & then we returned to the B.R. - went to the gasline for

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22 June Burns, Alaska

more observations. In the evening - I worked on Portenko's paper - Curlew Sdg - with the help of Dr. Schmidt-Koenig. Weather was partly clear - but light NW breeze (~5 mph) was blowing.

23 June Went to the field - B.R. at 0500 & took one recording of the Curlew Sdg. song. The sun was out, the sky being clear - but a light wind was blowing from the E. - making recording difficult. Late in the morning - I drove along No. B.R. - down into the flats - toward Elson Lagoon - where I located another display of Curlew Sandpepper - however none were found near the lagoon - where they have first been located. Large flocks of Pectorals present near receiver site & in general there was an increase in Pectoral activity - more displays - more chasing. Bird activity was quite poor however - the wind seems to be very depressing. The day remained clear - but the wind increased by 0800 to 10-15 mph. The tundra is drying out very rapidly - most of the upland areas are now very dry & the ponds are shrinking fast.

24 June Left for Ikroavik at 0730 - weather overcast, foggy & rainy - wind 10 ± mph - NE. Continued the plot - despite weather bird inactive - virtually no displaying.

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24 June Barrow, Alaska

In the late afternoon - I walked the ridge to the south of the plot & then to the west - seeing little except occasional Dunlin, ♂ Pectoral Gulls, & Dunlin.

The white-rumped sp. was observed near the south end of the plot.

I returned to the camp late in the evening. Weather remained windy & misty all day.

25 June Barrow, Alaska

Went to Bevel Ridge & walked north ridge - to Curlew Sdg. areas - where only the ♂ was seen - walked into camp. In the afternoon - the insect vacuum motor was renovated - but would not work - so Hines & I went to the insect plots & took pond samples & observation plots. Weather = cloudy - 8-10 mph. → NE - slowed to ~ 5 mph by late evening - when the sun came out.

26 June Barrow, Alaska

Pitelka, Hines, & I went to the Bevel Ridge & found NEST OF CURLEW SANDPIPER with 3 eggs - returned at 1200. Weather clear with light No. breeze. In the afternoon - one of Behncke's men & I went to the insect plots - took a vacuum sample. In the evening, Pitelka & I went to the Bevel Ridge & central marsh to check traps - found a ♂ Curlew Sdg.

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26 June Barrow, Alaska

E of AACS + 3 Sanderling - So. of the B.R. - near
Meadow Lake. Returned at 2200 - went to
Mullen for a happy hour + then return
to the Bear Ridge with Gary Stearn
to recat the Sanderling. Came out
0130. - when a light breeze (NW) + light
snow started falling.

27 June Barrow, Alaska

Went to Ikroavik + consumed all day - return
via Gasline + So. central marsh where
2 knots were collected. Weather
partly clear - usually with a high
overcast - light North or NW breeze.

Birds generally quiet - several flocks / Pectorals.

28 June Barrow, Alaska

Morning spent in insect sample processing +
then walked from Volt Ave to Britton's Area -
Bird display poor; 2 RB, sev S-p - 1 Pectoral,
no birds. Weather sunny with 5-10 mph
East wind. Went to Ebn + Woblesky - evening stream

29 June ~~29 June~~ Curlew Sandpiper nest.

Took Hume + Pitelko to see new Ferruginous
nest + then dropped them on the Bear
Ridge census plot - + went South / West
Slough + Doodil Slough - collected
three nest-boxes. In the afternoon -
Hume + I took a full set 1 insect

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29 June Barrow, Alaska

Samples - including pond edge - vacuum + observation plots. Weather clear but 10-15 mph - SE + E wind was blowing.

In the evening - we all went to Schmidt Koenig's seminar in bird orientation.

30 June Barrow, Alaska

Morning spent in skinning birds + picking up on lab work. P. Feltham left at 1100.

Harris + I went to Beach Ridge + found Cullen Sdp nest #1 destroyed - then drove to gas line ridge - east to Wohlsehoy Slough - checked on C. Sdp #2 + found the ♀ still incubating - went N. along east side of Beach Ridge + then across the ridge into central marsh - where 85 Long-tailed Jaegers were feeding. - No sandpiper displays were seen or heard today - + there was very little bird activity at all. Weather was clear + warm - with a light W or S. breeze - lots of mosquitos + other insects were out.

Went to Voth Area in the evening - 1 pectoral displaying near Trapline 11B - only RB head was one flushed from a nest. Two Semi-pals - Chasing: This was the extent of display activity. Weather became overcast - but remained warm + sultry - fewer mosquitoes than the afternoon.

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1 July

Barrow, Alaska

Weather: raining lightly in the morning but just low fog + mist with 5-10 mph wind in afternoon. Morning spent in lab working on insect samples + specimens. In afternoon - went to Uth Area to check a hatching nest. Mullen + I left for Ikroavik at 1900 - arriving there at 2000. Weather - high overcast - light northerly wind. Set out gill net (after untangling it!) along the west shore of Ikroavik.

2 July Barrow - Ikroavik, Alaska

Crossed plat from 0900 - 1400 + returned to Barrow during the late afternoon after checking nests on the way. Weather calm but overcast + drizzly in the a.m. - raining with light N. breeze in the afternoon - partly clear by evening.

3 July Morning spent in lab until 1000 - then went to Bevel Ridge to check on Curlew Sdg. Nest #1 again. But no ♀ - as before. Then went to South end of Bevel Ridge + found ♀ #2 sitting on the nest. Picked up Hens + came in for lunch. Hens + I took the insect samples during the afternoon. Weather in the morning - was overcast - cold N. wind (5-8 mph) with snow flurries. - remained cold + windy during the afternoon - occasional intervals of sun.

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4 July Barrow, Alaska

Worked in lab during the ^{early} morning & specimens -
Then went to VOR area to check & nests. Two
more Runkle nests were hatching.
Afternoon spent in working & insect
samples - nearly finished them with
the help of Huns & Sullivan. Weather
overcast, cold N. wind during the A.M.
with a few snow flurries - clearing
during the afternoon - so that it was
clear & sunny by evening. By 2200 -
the wind had slowed down to a
very light N.W. breeze - making work
on the tundra very pleasant. Went to
fidelity plots & Bent Ridge for 1930 -
2200. Little bird activity -

5 July Barrow, Alaska

Huns & I left for Ikroavik via fidelity
plots at 0800. Arrived at Ikroavik
at 0945. Censused Plot for
1000 to 1600 - returned to APR.
Weather clear & sunny - but a cold
7-12 mph east wind was
blowing all day - it was cloudy
& windy during the evening.

The tundra is very dry at this time. The
sparse vegetation feels hard & dry & is
not sufficient to evoke any response. In the

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5 July Barrow, Alaska

census plot. most of the small ponds & eel
of the polygonal trough are dry. The large ponds
are still wet but are greatly reduced in
size.

The bird activity is falling off rapidly.
No pectorals were heard displays today & Dunlin
displays is decreasing.

6 July Barrow, Alaska

Part of the morning spent in the laboratory working on
specimens - Then I walked out into the dune
area. Weather clear - with 5 mph W. wind
blowing. Bird activity generally poor - no
displays were heard. In the afternoon -
went to Beach Ridge & Central marsh to
Elk Lagoon. - overcast with 10-15 mph -
W. wind. Did lab work all evening.

7 July Went to Beach Ridge - E of Magnetic Station & marshy
area to north to take feeding trials - recorded
several Dunlin & Pectorals. Collected a Dunlin
with band. Weather overcast - but calm - no
wind - mosquitoes & other insects abundant!
In the afternoon Hines & I took insect samples
& observations in the Beach Ridge locale.
Weather clear - with 3-10 mph westerly
wind - insects abundant - bird life
quiet - except for small numbers of Long-tailed
Jaegers & a few Parasitic Jaegers.

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8 July Barrow, Alaska

Worked on insect samples during parts of the morning & afternoon. Went to The North Woblesley area to check on The Curlew Sdp - which was not present - no sign of eggs or ♀ - burr were noted. Saw 2 caribou near Elson Lagoon. Weather - partly overcast - but windless & warm - mosquitoes were thick. In the afternoon, I returned to check more thoroughly on the absence of the sandpiper - by this time a 2-5 mph westerly breeze had risen & rain fell for about 45 minutes. Many jaegers - mostly long-tails were seen in the marsh & east toward Elson Lagoon. Little shorebird activity.

Stevens & I went to Innaavik at 2130 - high overcast - light NW wind. Warrigan had been burglarized & much of the food stolen.

9 July The plot was censused from 0930 - 1330.

Weather clear & sunny, - light northerly breeze during the afternoon. Re bird activity - the plot was nil! Hardly any birds were seen or heard [1 RD displaying, 2 small flocks of 1 RP, 1 ♂ Peetom, seen jaeger flocks - & nothing more except a few incubating birds]. Left the Warrigan at 1600 - drove around the south end of the lake - &

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9 July Barrow, Alaska

North to Dry Lake - (where a large Caribou was seen) - to Oblique Slough - Central Marsh & camp.

10 July Barrow, Alaska

Went to Voth Ave - insect plots & ridge, & marsh to the north - for feeding records & to check on Shoveler activity, which was in general poor. Weather overcast - 10 mph - E wind.

In the afternoon - I travelled along the B.R. - & NE of the magnetic station - weather still cold & windy.

Several young birds found - RB, RT, & BP.

11 July

Day cold - overcast with 3-8 mph - easterly breeze. In the morning - I went to

Beach Ridge - Goshute Ridge - central marsh -

Woblesley Slough & back - Many (120+) Long-t.

Jacks hanging around - mostly feeding on insects - but probably would take

eggs & chick if they were encountered.

Banded a brood of red-bellies & 1 A Phalarope on Pitelka's Plot - took some feeding records.

In the afternoon - I went to Insect Ave - took observation records & vacuum & pond samples. Made some feeding record on return. Evening spent in processing.

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12 July Barrow, Alaska

Went to Ikroavik in the morning + walked the plot. There was no bird activity + most of the nests were empty - no sign of the adults +/or young. Several groups of long-t. jaegers were present - 2 snowy Ols were in the plot.

In the afternoon - I made feeding observations between the Voth Area + Insect Ridge - 8-10 Dunder, 3-4 Pectoral P; 2 semi-palmated Saps - were in Inana. Weather today was overcast with light E-S wind.

13 July Barrow, Alaska

Morning spent finishing up insect samples + specimens. In the afternoon Muller + I took Dr. and Mrs. Tracy J. Storer to the Beach Ridge + Central Marsh. Weather was overcast + a cold Easterly breeze was blowing (5-8 mph). In the evening - Nat + specimens were worked on.

14 July Barrow, Alaska

Morning was calm + overcast with many mags + a few mosquitoes in evidence. In afternoon a cold 5-10 mph NW breeze was blowing. In the morning I went to Eison Lagoon + Woblesley Slough - returning via Central marsh where I picked

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14 July Barrow, Alaska

up Pete Savouk & Warren Esler (Folk's pugut) who had a broken-down vessel. In the afternoon - I went to Voth Area & insect traps & took several bird samples. Several Curlews, 1 ♀ Pectoral, 1 Semi-palmated Lp were seen as well as several Golden Plovers. No young birds were located. Notes written in the evening & samples processed. Ice went out yesterday - but is still visible & mile or so off shore.

15 July Barrow, Alaska

Stayed in during the morning & worked on specimen & stomach contents. In the afternoon - went to Insect area & took samples, observation records, etc. Weather overcast with 3-5 mph easterly breeze.

16 July Barrow, Alaska

I went to Ikroavik during the morning. Bird life was essentially nil - on the plot - little seen elsewhere - except King-t. Jaegers. Weather clear, warm & calm. Light breeze during the late morning. In afternoon it was overcast with a cool S-W wind. It began to clear from mid-midnight. Afternoon spent picking insect samples.

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17 July Barrow, Alaska

Weather clear, sunny, & warm - 60°F +. Many mosquitoes were out - as well as an insect. I went to Bear Ridge & Centur Mare during the morning. Saw a flock of Dunlin. In the afternoon ^{and evening} Specimens & insect samples were processed. Weather remained clear - but a light N.W. wind was blowing.

18 July Barrow, Alaska

Weather clear, calm & warm. In the morning, I went to Bear Ridge - Wohlschlag thought to check on nests - there is still one active Dunlin nest near the S. end of the B. Creek. For Caribou seen just S. of Wohlschlag near the crossing & 1 near Brant Point. In the afternoon & evening - I finished the insect samples & processed specimens. Late in the evening, Schultz, Progar, Boyd, Bohusack, Kauff, Sullivan, Delwiche & I held a conference on seasonal cycles the tundra ecosystem, which was profitable for all.

19 July Barrow, Alaska

Weather overcast in the morning & a light easterly wind was blowing. By 1100, however, the clouds were gone & the wind had stopped. The remainder of the day was clear & warm, with only

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19 July Barrow, Alaska

occasional breezes (6-15 mph). Specimens were processed during the morning & in the afternoon, insect samples were taken. Only bird activity noted is several small flocks of Golden Plover, Dunlin & Pectoral Gulls - near Voth Area. No jaegers noted.

20 July Barrow, Alaska

Morning spent in lab working on specimens & insect samples. In the afternoon to Ikroavik & returned via Voth. Weather overcast at Ikroavik - low fog near coast - some mist. Rain & fog in the morning. Few birds noted. (several flocks of RDs - Golden Plover & small groups of Pectorals).

21 July Barrow, Alaska

Worked insect samples & specimens in the a.m. - went to insect area, took food samples, drove to Central marsh - So. end of B.R. - left - Logan & back via AKES - in the afternoon clear - heavy fog - when would left for short period & then drizzle again. Little bird activity.

22 July Barrow, Alaska

Finished processing sea samples in the morning & then went to Ikroavik during the afternoon. Weather overcast -

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22 July Barrow, Alaska

with 10-15 mph east wind. Several flocks of Pectoral Sigs in Footprint Lake & large groups of Phalaropes at the Wannegai inlet to Ikroavik.

The tundra is still very dry despite the rain two days ago. Many of the plants are now flowering - Eriophorum is in bloom in patches all over the tundra but perhaps most common or densest in Footprint Lake. Papaver is distributed in the well drained areas - polygon tops, ridges & certain parts of Footprint. Also in the dry lake, the Senecio congestus is in full bloom. In the ridges & polygon tops - Stellaria is everywhere - as well as a number of Saxifraga - most commonly S. punctata & cernua. Petasites frigidus is blooming everywhere & the large dark green leaves in some areas form dense mats. Potentilla is in bloom in drained areas. Many of the grasses are starting to head & the tundra has been very green during the last week - due to this year's growth. Lemnaceae growing so well enough to cover the dead material. Lemmings are still not seen commonly.

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23 July Barrow, Alaska

Worked on specimens & finished insect Sample #10. In the afternoon, I went to the insect plots & took more samples. The number / adults insects has markedly decreased. - The tundra is still very dry & the ponds are becoming smaller & smaller. The samples are now taken in mud at the pond edge & therefore chironomids are forming a large part of the insect - but even these are decreasing - since probably most of them have emerged. As yet - the egg-laid this season have not produced observable young.

In the evening, specimens & insect samples were processed.

Weather was clear - but a strong (5-15 mph) east wind was blowing.

Muller & Huns returned from the Inarar.

24 July Barrow, Alaska

Worked in the lab on insect samples all morning. Mah left via Uliar at 11:00.

In the afternoon - went red-duck hunting in No. 1 area - No. 1 slough area - found a flock of 6. Several flocks of Pectorals included some ♂♂ are also present in the area. Weather overcast but calm in the morning - low fog & dark clouds with 10-20 mph - NW wind in the p.m.

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25 July Barrow, Alaska

Worked in the lab all morning on bird specimens. In the afternoon - I went to Bease Ridge + Elsa lagoon (vic. of Brant Pt). Weather overcast - 10-15 mph NW wind. Little bird activity.

26 July Barrow, Alaska

Specimens processed + insect samples completed during the morning. In the afternoon, I went looking for jugs in Voth + vicinity. Little activity was noted - 1 small group of Dunlin, several Golden Plovers, + 2 Long-t. Jaegers. Longspurs are present in small numbers - in groups.

Weather overcast + calm in the morning - 10-15 mph N.W. wind during the afternoon. Rain started during the late evening.

27 July Barrow, Alaska

Weather: hard, driving rain during the early morning hours - stopping by 0900. Stormy NW + WNW wind blowing all day - with fog + very low ceiling. - scattered showers + mist (wind 15-30 mph) Ocean with large breakers.

Morning spent in lab working on specimens + stomach analysis. In the p.m. - Hines + I took insect pond samples + measured the upland ponds.

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28 July Barrow, Alaska

Weather - high overcast with light rain
wind during the morning - change
to dense low fog - 10-15 mph rain
wind + scattered rain + most during the
afternoon + evening.

In the a.m. I worked on specimens +
then after lunch went out to Oohyak
Slough + Elson Lagoon. Found a flat of
40 ± Scaevola feeding on Elson bluffs - 400 yds
north of Oohyak - two were collected.

Found 76 Black-bellied Plovers + several
Pectoral sandpipers seen in Central Marsh.

Since the 0.46" rain which fell during the
early morning hours - Friday - 27th - there
is much standing water on the tundra. Most of
the depressions are now filled + small pools
or puddles are everywhere. The ponds on insect
ridge + in that vicinity have raised an average
of 3 centimeters in height. The rain which
has been falling today - should increase
this even more.

29 July More rain fell today at Barrow + the weather
was consequently overcast + cool. A light
northerly - a westerly breeze was blowing.
Went to insect plots during the afternoon -
took vacuum + observation samples - when
we almost no insect activity - the

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29 July Barrow, Alaska

surface & the ground was quite wet. When I arrived back at the lab - I found that Alfred M. Bailey - Woods Mus. Nat Hist had been here & was now in the village. So I went in & found Bailey & Tom Bowers talking in Bowers' Cafe - Barrow. After talking with them for half an hour - I had dinner with the Mullens' at Bowers Cafe - Bowersville & then returned to camp. Bailey is to leave tomorrow. Jim Stales - Doc's (Beet) assistant brought in a *Tufta buffi* skeleton last evening in the beaver denials - from 1 of the camps.

30 July Barrow, Alaska

Worked on insect samples all morning & during the early afternoon. Went to Bear Ridge - Arctic Inland & saw east of B. B. - during the last half of the afternoon. Little bird activity - 1 song / Sparrow - 1 Junco / Golden Plover - 2 D. - b. Plover - 1 Parasite & 1 L. - c. Jaeger - 2 Snow Owl - & several Longspurs. Large number of mooring eiders (mostly King) over Hyman NW over the beaver ridge & central marsh. Weather - high overcast - 0-5 mph northerly wind. No rain seen early last evening.

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31 July Barrow, Alaska

Worked in the lab during the 1st half of the morning -
then went to Beaulieu Ridge & EISA lagoon
during the ~~afternoon~~ last part of the morning.
In the p.m. - Herms. I took pond samples &
completed the pond measurements which
had been started last week.

Weather overcast - with drizzle &
light rain - becoming partly cloudy
by late evening.

1 August Barrow, Alaska

Morning spent in the lab working on insect samples.
In the afternoon - I went to Insect Area &
Footprint Lake looking for shorebird
activity - a few pectoral & dusky were noted.
Juvenile western & semi-palmated scap. were
near Britton's area - otherwise no other juveniles
were seen.

Weather rainy during the early morning
hours, quitting by 0900 - clearing by
noon & clear & sunny during the
afternoon with a 3-10 mph westerly
wind.

2 August Barrow, Alaska

Worked on insect samples during the morning -
then went to insect area for vacuum
sample & observation plots. Sunny & clear
from 0800 - 1200 - overcast with

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2 Aug Barrow, Alaska

A few scattered shower + light wind of 3 to 10 mph during the afternoon. By 2000 - the sun was partly out - no wind - warm + humid.

The tundra is quite wet now - many pools of water are standing + these seem to get larger + deeper as time goes by - as water is draining off slowly from the high ground. There was little insect activity on the high polygons or in the troughs - but increasing in the slope + lowlands.

3 Aug Barrow, Alaska

Insect samples finished during the morning + in the afternoon - I went to the ~~insect plots~~ - did ~~observations~~ plots + ~~various samples~~. ~~Weather~~ to the west side of Central marsh - fertile plots - Woblesley, Slough + Bevel Ridge. Weather overcast but warm - no wind during the morning - foggy with much rain during the afternoon and evening.

Flocks of juvenile pictorial - little else seen.

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4 Aug Barrow, Alaska

Worked in the lab all morning before going to the insect plot to take pond samples during the afternoon. Small groups of (juvenile) immature Pectorals + 2 Dunlin were noted - only other birds noted were Hods + molting + young Longspurs. Weather overcast with occasional showers light north-wind (0-8 mph). Samples processed during the evening.

5 Aug Barrow, Alaska

Samples processed during the morning + early afternoon - then went to the Beach Ridge + Elson Lagoon at Brant Point. Small number of Immature nauri near Fuel Lake - Central marsh - wet polygon near Brant Point + slope - st. arctic lagoon. Only occasional Pectorals (all juv) - noted - no Dunlin seen.

Weather overcast with scattered rain showers throughout the day. - wind light (0-5 mph from N-NW).

6 Aug Barrow, Alaska

In the morning - I drove south - by Fuel Lake - Beach Ridge - Gasline Ridge + worked on area below ^{gas. R.} + east of the gasline. This is mostly low-arctic polygon - or wet polygon habitat + numerous Dunlin + Pectorals + a few Western Sps. were found.

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6 Aug. Barrow, Alaska

In the afternoon - I took soil samples, vacuumed & took the observation records at the insect plots - drove back through the NAD Voth Area - more Dunlin & Petrel seen.

Weather overcast with low fog - visibility 1 mi - to 10 yards - varying through the day. Wind 5-10 mph from the east. Tundra very wet & soggy from recent rains.

7 Aug Barrow → Barter Is. - Lake Peters, Alaska

Morning spent in processing soil samples - weather - high overcast - light easterly breeze. Left for Barter Island at 1530 with D. Muller, R. Ashley - 3 owls seen between camp & So. Barrow 3 - 1 owl 5 mi E of So. Barrow - 3 - 1 owl 3 mi west of Admiralty - At 1623. overcast shore of Admiralty - 1627 saw 1 owl - 1630 - 1 owl + 5 Glaucous Gulls on tundra - At 1645 - 1 Barn Swallow - 1725 at Woods Camp - 2 Owls on east side of Cove. Arrived Barter Is at 1900 - met Zimmerman & transferred to Fleet plane - Arrived at Peter Lake at 2010 - weather rainy - low clouds with severe thunder storms between Barter & Peters. 1 immature Semipalmated Plover coll. by D.A.M. at mouth of Chamberlain Creek

Muller & I put out traps at the SE end of Peter & at the north end - weather stopped - little seen. To bed at 0230.



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8 Aug Peters Lake, Alaska

Up at 0700 - had breakfast + walked to the south across the fens to the south end of the lake (with R. Ashley) + up into the canyon - So. of Mt. Chamberlain. The only birds seen were in the lowland - most of them were immature wheatears, + pigeons - with a few Logland Longspurs, Snow Buntings + 1 sparrow (in tree?). No sign of Eagles was noted. ^{1 Wanderer at Chamberlain} The jay's nest was not located. Arrived back at camp at 1600 - walked on the fen late in the evening. Weather overcast with low clouds hanging over the mountain tops - heavy rain during the afternoon + early evening.

9 Aug Peters Lake, Alaska

Muller + I were up early - checked traps at both ends of the lake - caught several Microtus oeconomus in the marshy swales between Peters + Shroder lakes + M. mus on the upper fens at the south end of the lake. Located 1 jay's nest (with at least 3 Paroseta - presumably one 2 adults + 1 young in the nest) on the Peters - Shroder alluvium. Then located 2nd nest on east side of Shroder - with 2 adult present but no young.

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9 Aug Peters Lake, Alaska

could be found. Pellets were collected at both nest sites. Graylms, Arctic Char, + Lake Trout were caught from the lake + adjacent streams during part of the day. Weather - calm - scattered clouds - occasional patches of sunshine. Raven seen at isthmus - 2 Juv. R. S. + 1 least Sdg.

10 Aug Peters Lake, Alaska

Mulle, I went to south end of lake (Chamberlain fan) to pull in traps - saw several juvenile wheatears, pipits + snow buntings.

M. mus was watched for about half an hour. These microtus are diurnal + numerous animals were encountered as we walked over the fan + especially on the terraces above the south edge of the fan. The active runway systems were noted + on two occasions, an animal was seen to sit in it haunches in front of a burrow entrance + give the loud musical squeek - which accounts for their common name - The singing vole. One pile of cut leaves was located under the edge of a boulder - when pulled out with the spade - its compact volume would be about $\frac{1}{2}$ gal. Most of the leaves were willow - with only a few grasses. This pile was laminated in such a way so that the

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10 Aug ^{Pt. Lake}
~~Barrow~~, Alaska

leaves on top would come before the next layer was added. The singing, - the upright posture, - the appearance (rounded ears - hunched neck), the sternal vegetation in the winter in-laminated arrangement & the habitat shows strong convergence with the Pike ().

During the early afternoon - packed - prepared for plane. At 1700 - R. Astley & I rowed across the lake & began climbing the mountain after Dall Sheep. We were able to get within 30 yards of a large ram (with full curl) & saw a total of 19. Later 22 were seen from camp. In the mountain top (2000' above the 2800' at the lake) - there were frequent Snow Buntings & 2 Horned Larks. One Rock Ptarmigan was flushed from one of the high north streams in the vicinity of the ridge top. Half a dozen caribou have been seen near the lake. Martlets (Horned) all seen & heard in the talus slopes in the upper part of the alluvial fans. Ground Squirrels (parkes) are common along the lake & up some of the more gentle slopes. One Ermine (Mustela ermine) was

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10 Aug Peters Lake, Alaska

seen + collected on Chamberlaini Is.

Say's Phoebe (3), 1 Northern Shrike (juv.) +
3 Redpolls seen at camp today. heard
the pipit + wheatears. Another
immature stork was seen in
the dune area across from camp - among
the low growing (4') willows.

11 Aug Peters Lake → Barrow, Alaska

Plane arrived late last night + we
departed for Barrow at 0910 - flying
a straight course from Peters to Siktok
(mount Colville) → into Barrow along
the coast. Numerous caribou + 1 moose
(50 mi E. of Siktok) seen - 15-20 mi
inland from coast - 1 cow) were
noted. Only 1 not + 2 Parasitic jaegers
were observed. Arrived Barrow at 1200.
Rest of day spent in lab + sketching -
Samples + notes

12 Aug Barrow, Alaska

I picked samples all morning + then went
to Voth area - Voth marsh during the
afternoon. Four flocks of Dunlin noted
+ several individual Pectorals. Weather
overcast but calm during the morning -
10 mph north-wind + fog during the afternoon.
Hines + Stevens to Peters Lake after supper.

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13 Aug Barrow, Alaska

In the morning, I went to Deod Ridge - Central marsh - via meadow lakes - past Ridge & then south for about a mile. Two flocks of Dunlin were encountered, several individuals melanotos - few imm. R. phalaropus, several imm. Golden Plovers. In the afternoon - observation plots & insect samples were taken in the VOR - insect area. Specimens were processed during the evening:

Weather - light overcast - with occasional patches of sunshine. 0-5 mph east wind in the a.m. - increased to 10-15 mph in the evening. Fog settled in by 2230.

14 Aug Barrow, Alaska

Morning spent in lab working on samples & specimens. In the afternoon - soil samples were taken at the insect plots & the No. VOR & Britton's Area were checked. Most sandpeeps were along the gravel ponds - except for a few pectorals in the wet polygons. Several No. Phalaropus seen with the Red P. - near Britton's Area.

Weather overcast but calm in the a.m. - clearing partly in the afternoon - fog settled in by 1700 - lasting through the evening. 45-50°F. - all day - little wind.

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15 Aug Barrow, Alaska

In the morning - I went to Ikroavik via Voth + Footprint Lake. Returned on the east side of gasline by meadow lakes + beach ridge. Weather - thick fog - $\frac{1}{16}$ to $\frac{1}{2}$ mi visibility.

Footprint Lake was nearly devoid of bird life - except small flocks of longspurs + 3 immature petrels. Most birds were seen on the gravel ponds near Britton's Hut + Turk Lake (Phalaropes, mauri, + few alpe - R. Turnstone + melanotos) - while some Phalarope + several alpe were along the shore of the large inland lakes (not Ikroavik, however).

The afternoon was spent picking insect samples + preparing specimens. Notes + more specimens were worked - in the evening.

16 Aug Barrow, Alaska

Drove to Beol Ridge + halfway to Elm Lagoon - during the morning + then went to Britton's Hut + South Salt Lagoon in the afternoon. Weather overcast - misty + windy (10-15 mph - E). Several groups of red-bills + petrels seen - otherwise little activity. Some vacuum insect samples were cleared + then Sullivan + I went to Mullens in the evening.

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17 Aug. Barrow, Alaska

Morning spent preparing + processing specimens + waiting for flight plans - but since weather was bad in the west - we were put off until Sunday. In the afternoon - I went to the insect plots - took pond, vacuum + observation samples. Weather overcast with 5-10 mph SE wind blowing.

18 Aug Barrow, Alaska

Pond samples processed during the morning + then in the afternoon, I went to Beach Ridge - E15m Lagoon (Brant Pt.) - central marsh + meadow lakes, returning via AACS. Most of the pups are now along the lagoons (East, N. Side, + E15m) but a few Kenia were seen in the wet marshy tundra. Large flocks of dowitchers were N. of the B.R. - (N. of mag. stat.) + on the curve of central marsh. Several long-t. jaegers were seen hunting - 2 Snow Owls were on the beach ridge near Gasline. Weather was overcast + misty - with 5-10 mph east wind.

19 Aug Barrow, Alaska

Morning spent in lab. In the afternoon I went out past the duck camp + along the ponds toward Point Barrow. Large number of immature Sanderlings, Semis +

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19 Aug Barrow, Alaska

Western Sdps were encountered, as well as 1 R. Turnstone (imm.) + 1 semi-palmated Sdp. (imm.).

Skies cleared during the afternoon + it became bright + sunny. A light (0-5 mph) north wind was blowing.

20 Aug Barrow, Alaska

Specimens processed during the morning. Hines + Stevens returned from Inuarik R. - Hines + Sullivan departed on Ulin at 1100. In the afternoon - I went through Britton's Area - No. 100A - insect area - took soil samples - No. 100A Area - took 4 VOR marsh + wet ditch + to North end of Footprint - took up along the gasline - VOR creek + then back to camp. A few Melanotos were at the gravel ponds + a No. 100A - 1 Ad + 1 imm. apies were at the gravel pond. Little other activity was noted. Picked mud is even. Weather overcast - with cold north wind blowing (3-8 mph).

21 Aug Barrow, Alaska

Soil samples processed + notes written during the morning. In the afternoon I went south / Gasline Ridge - east below the fertilizer plot + north to Cobbleblow.

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21 Aug Barrow, Alaska

Several flocks of Adult + sev. of Immature alpina were located as well as scattered melanotos + Pluvialis. Weather: overcast - cold - 5-12 mps - N. wind. The temperatures are now dropping at night + are staying low through the early morning. Specimens were processed in the evening.

22 Aug Barrow, Alaska

Specimens were processed + some packing was started during the morning, while in the afternoon - I took pond samples, which were in turn processed during the evening.

Weather: cold - with snow flurries at various times during the day + night. Plus, the sun even came through several times.

23 Aug Barrow, Alaska

Pond samples picked all morning - while at the same time, I was waiting for the flight to Gull Lab - which has been an offering for over 6 weeks now. Finally - in the afternoon - I went to Britton + Voth's new look marsh - Footprint Lake (no birds!) + Ikroavik. Weather was overcast - with a light SW-W breeze - temp. around 40. Large flock of Phalaropus + juvenile alpina in the gravel ponds near Britton's area -

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23 Aug Barrow, Alaska

unhappily yesterday - very little / anything
(3 Phalarope + 1 imm. puffin) was found.
Sparrows - these birds are moving
through - at a substantial rate. Evening
spent in doing stomach analyses + note writing.

24 Aug Barrow, Alaska

Morning spent in lab work + specimens +
starting to pack materials to be sent south.
In the afternoon, Stevens, Del Shirley (USC-) + I went out toward POINT BARROW -
where a number of Sanderlings, imm (FIA) +
Adulter, Red Phalarope + Glaucous Gulls
were noted. After getting - nothing
stock in the mud - it took us two
hours to get out + finally made it
back to camp by 1730. Weather
overcast - wet stormy 5-15 mph
easterly wind.

25 Aug Barrow, Alaska

In the morning - I went to Central
Marsh, Wohlsehlo, Slough EIS -
Lagoon - ~~Star~~ Ookpik Slough - went
to the gasline + the rest to meadow
lakes + back into camp. And a few upland
+ melanotos were noted. No
jays - 4 crows + no lemmings. In the
afternoon - I went to Britton's + North's area to

Holmes, R.
1962

Journal

25 Aug Barrow, Alaska

Try to find shorebirds. Few were located - except at the gravel ponds. Weather overcast during the morning with a light SW wind; clearing in the afternoon - sunny - with little or no wind. In the evening - went to the village - returned at 2200.

26 Aug Barrow, Alaska - Gull Lake, Alaska

Went to insect plots at 0800 - took soil samples; returned to lab & worked - there all morning. Weather overcast, light sprinkles from 10-15 mph westerly wind.

Left at 1430 for Gull Lake with Gil Chalko & Bob Murphy (photog) - 1 Owl seen near Wainwright - no others seen nor were any jaegers seen. Arrived Gull Lake about 1735 - landed at 1800. The lake has gone down in size & depth - 30-40' of mud & gravel is now around the edge of the lake & the island. Also the island has been extended - by gravel bar - 150' to the northwest. On arriving there were about 80-90 Gulls seen on the island & about 25 of these seem to be young of the year, 6-10 older immatures (2-3 yr?) & the remainder were

Holmes, R.
1962

Journal

38

26 Aug. Barrow, Alaska - Gull Lake, Alaska

adults. One dead - full, grown chick was found along the shore of the island.

In counting the nest sites - there appeared to be about 23 active nests (several not checked - ± 10). 14 pellets were picked up in 1 hour + we departed after getting stuck in several sand bars at 1930. - arriving back at Barrow at 2130.

The lake is drying up so much that landing - next year - may be difficult. This may have been our last trip!!

27 Aug Barrow, Alaska

Finished processing soil sampler by 0900 + then went to Voth Area + took pond samples. Weather overcast with 5-12 mph - N.W. wind.

In the afternoon - after processing several ~~soil~~ samples - went to central marsh - Gasline Ridge + points to the south. Rain began during the afternoon + continued through the evening. Very few birds seen - several scattered 1 + 2 alpine swans + 1 Ad. alpestris. Only 3 melanotos seen.

28 Aug Barrow, Alaska - Fairbanks

Packed all morning + left via Wien at 1145. Arriving 4Bk. at 1400 after stopping in Umiat. Weather at Barrow was overcast, cool + 10-15 mph - N. wind.

Holmes, R.
1962

Feeding Observations

7 July Barrow, Alaska

Records were made today on the method of feeding by the various species + how this will vary with habitat, weather + season.

The accompanying data sheet shows the items recorded. The only explanation needed concerns the feeding action. If the bird pecked at the surface or at the vegetation - it was recorded as a peck - these are single motions - not repeated rapidly. If the bird jabbed so that the bill went into the lute layer or below (0 - 10 mm) then it was called a jab. This motion may be repeated rapidly 4-5 times - each sequence of jabbing was recorded as one mark. If the bird probed - deeper than 10 mm - then - this was recorded as a probe - again rapidly repeated sequences were recorded singly.

- See discussion of alga + melanotos for this date.

1 Aug

Black mud near ^{at} corner with water no - no bird feeding in this habitat. Rain has increased water here so that this bl-mud habitat is no longer available. Most feeding seems to be on the ridge around low-center polygon + on the

Holmes, R.
1962

Feeding Observations

2 Aug Barrow, Alaska

wet (or damp) troughs + the lower part of the slopes

2 Aug These feeding sites are correlated - perhaps indirectly with the observations that were made today - where most surface activity was on the slope + lowlands - little or none on the polygons.

Even though this is the case - most of the stomach contents during the last week have contained larval *Typhlocyba* - no adults. The one immature which I have been able to watch - was feeding entirely by ~~stomach~~ pecking - apparently taking all surface forms.

6 Aug Feeding is still on the wet polygons - but now groups are starting to move coastwise to the gravel areas - i.e. near Britton's area. Large flocks of Herring were encountered today - on the wet p. dunes.

Iktroavik Census Plot

Holmes, R.
1962

28 May Barrow, Alaska

Plot checked - entirely covered by snow - no birds

6 June Plot still covered but tops of polygons + the ridge
are along the southern sector starting to emerge
(some grass blackens). A pen + larval 40' x
600' along the ridge so of 25.0 - 25.4 - is
open patches - 2 Rinks - 1 White-rump seen - 12
aree

9 June Most of the polygon tops are open now + the
ridge on the southern half is relatively clear
of snow. Several Redpolls heard displaying +
+ 2 shrikes seen. Several longspurs were
present - + a flock of Pectorals.

14 June

21 June

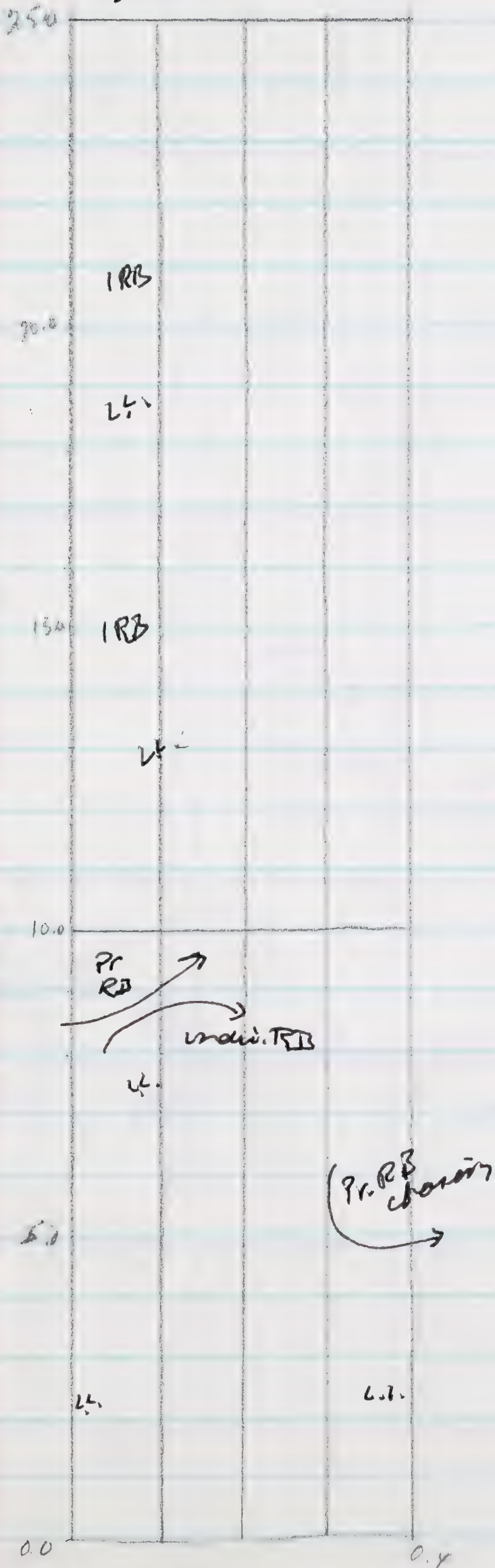
21 June Entirely free of snow

24 June

Holmes, R.
1962

Iktroavik

9 June Iktroavik, Alaska
Flock of 15 Pectorals ↑



/

100

CP

74

475

5.9

7 x 15

3RP
1250

77
PS

37

010018 010018

154

418 R2

76.

107

1-718

0-0

Holmes R
14 June 1962

2.

20.0

Skraivik

18.0

17.0

PT

3RP

15.0

12.0

10.0

X

XRB

XX GP

SA 50'

3RP

XRB

3RP

PT

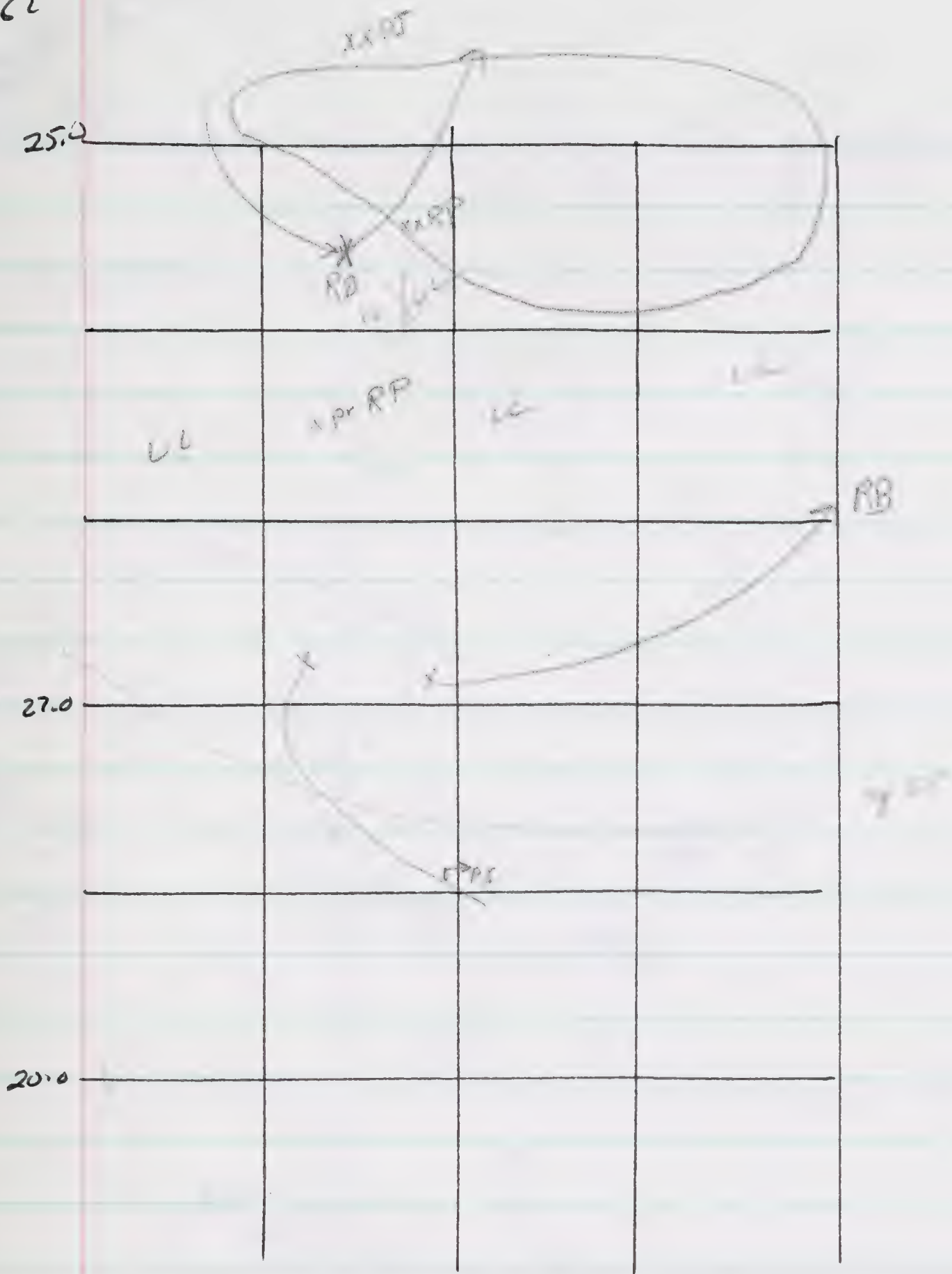
PT

2000'

1962

14 June Shroovitz

3



Holmes, R
1962

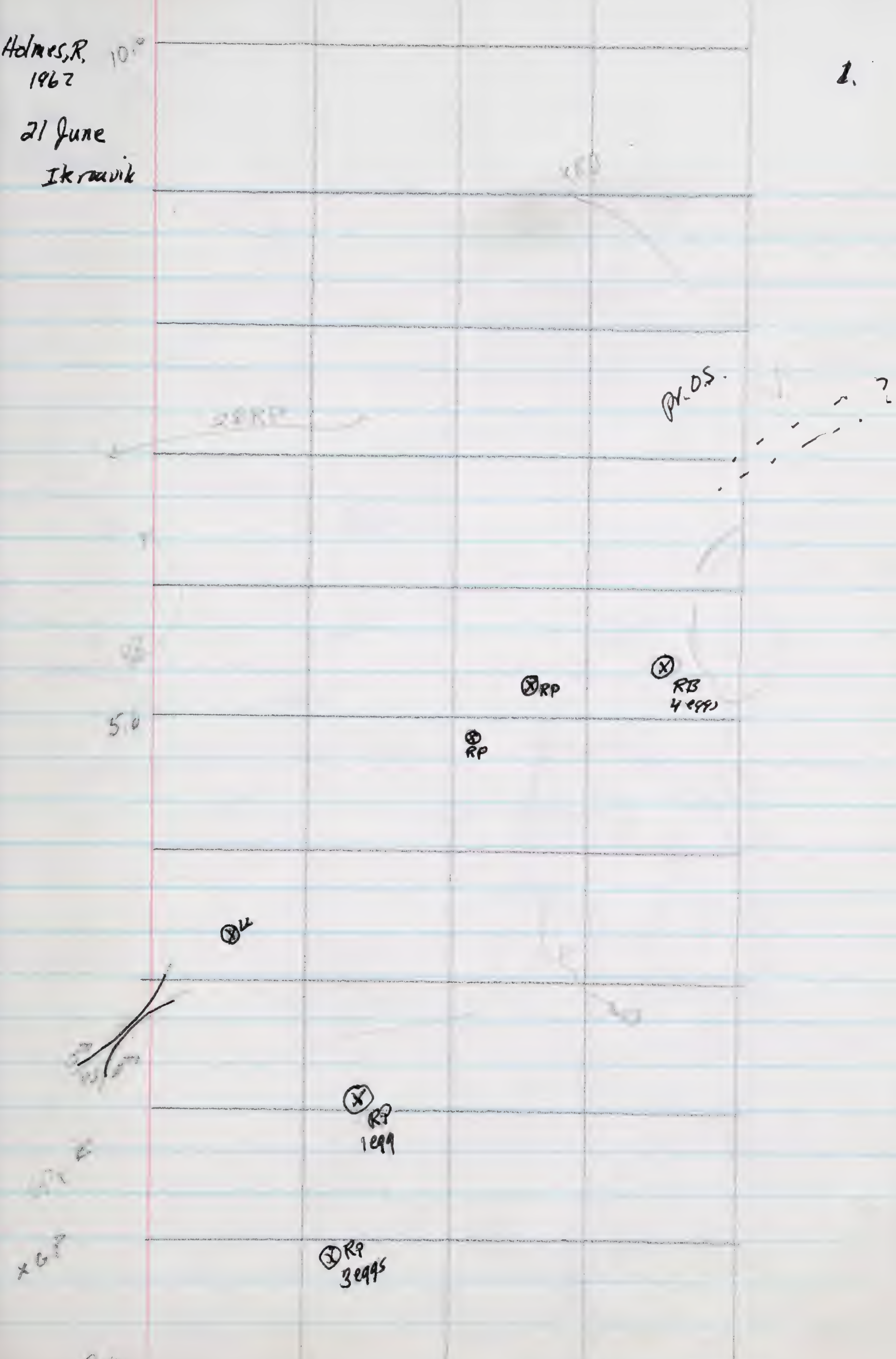
20 June /
It rook



Holmes, R. 10.
1962

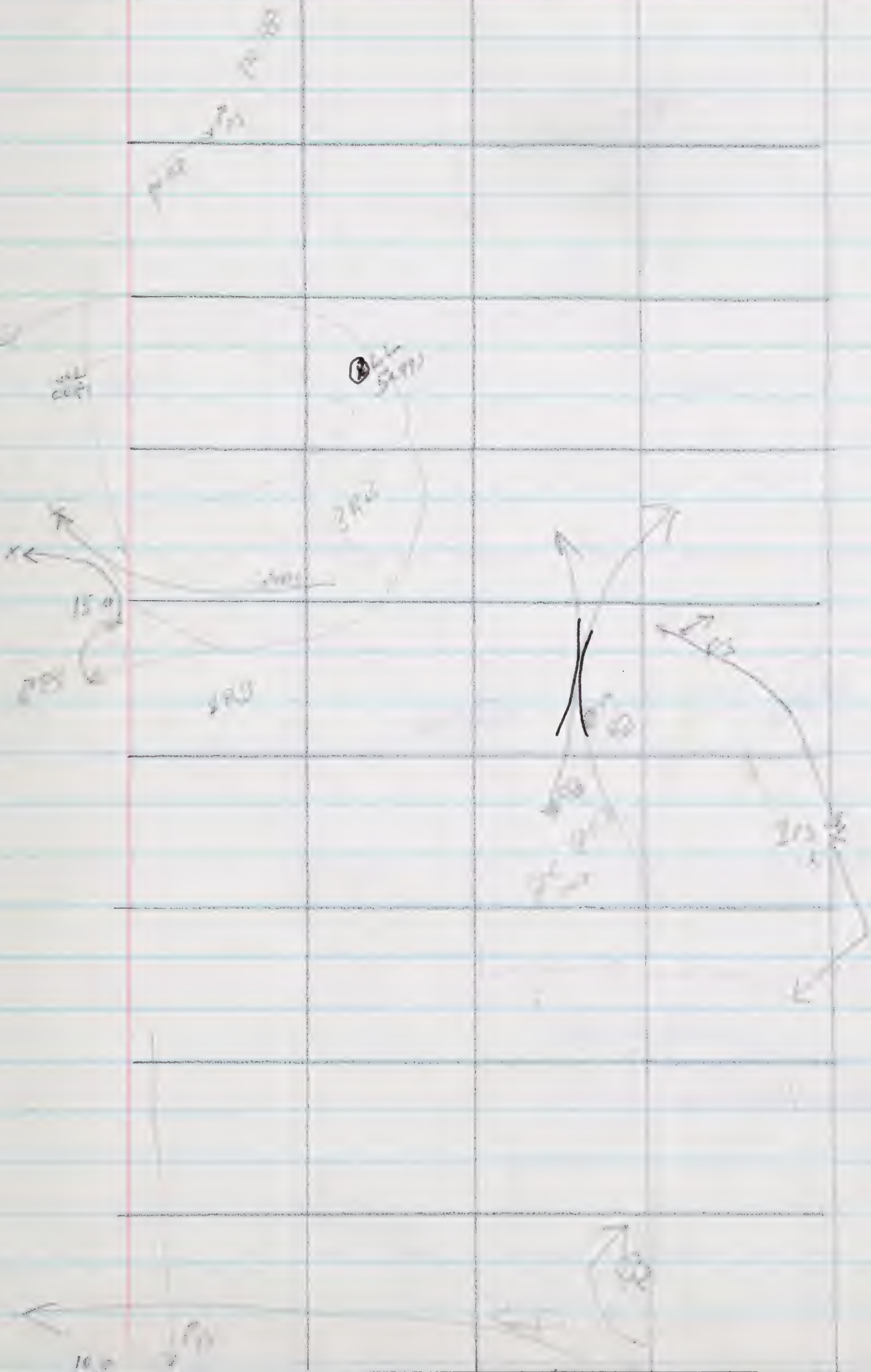
1.

21 June
Ikroavik



Holmes, R. 200
1962 185
21 June
Shranik

2

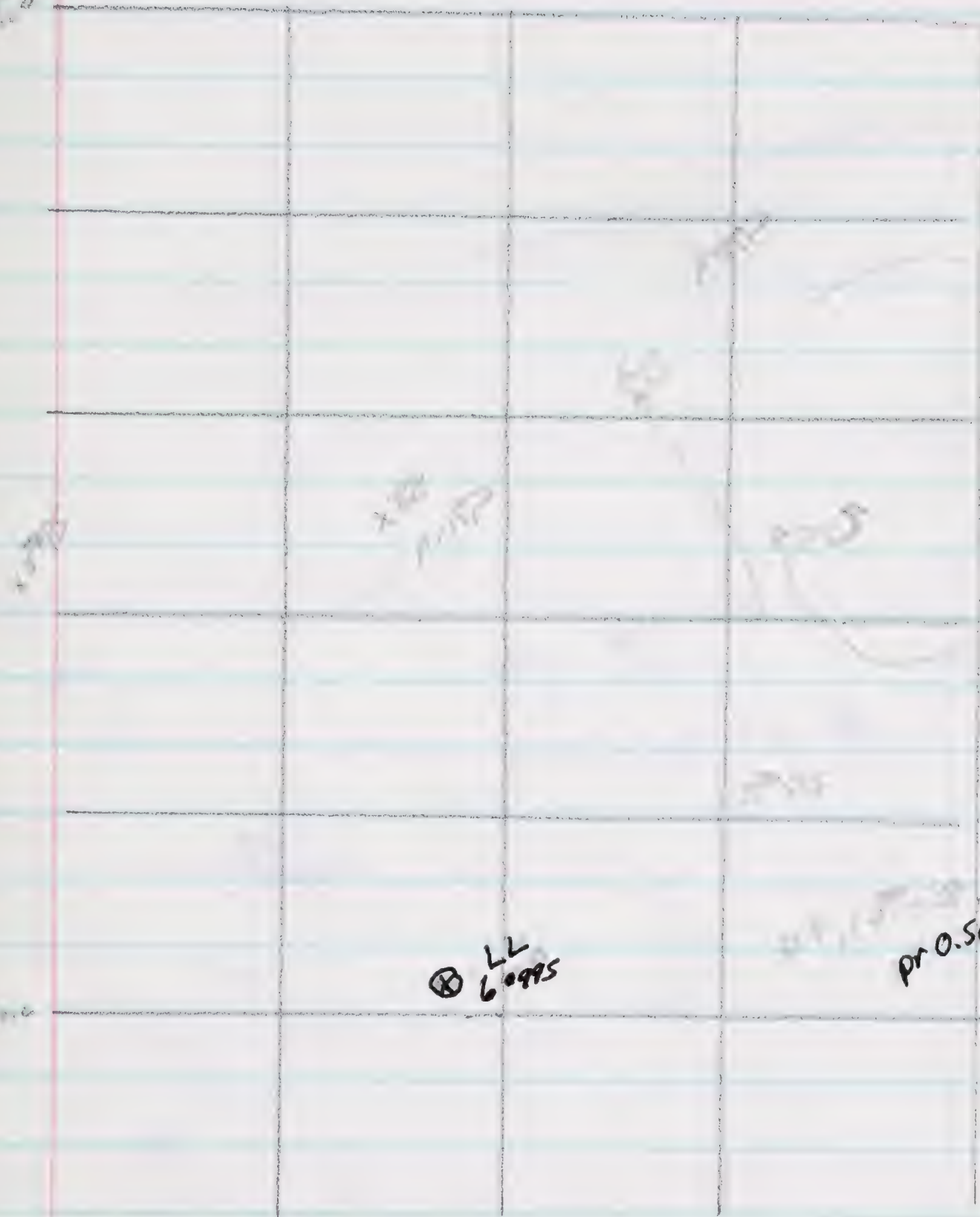


Holmes, R.
1962

3

21 June
Jkravik

25.0



← ↑ → //

not censused
thoroughly due
to cold weather

Holmes, R.

1962 10.0

24 June

St. Louis

1

8.0

5.0

2.0

1.0

① RB
4 eggs

⑧

② RB
1 egg

⑤

④

⑦

⑥ RB



Holmes, R.
1962
24 June 2000
Skroavik

2.

2617

298100
298100

224

2873
1500

SP.

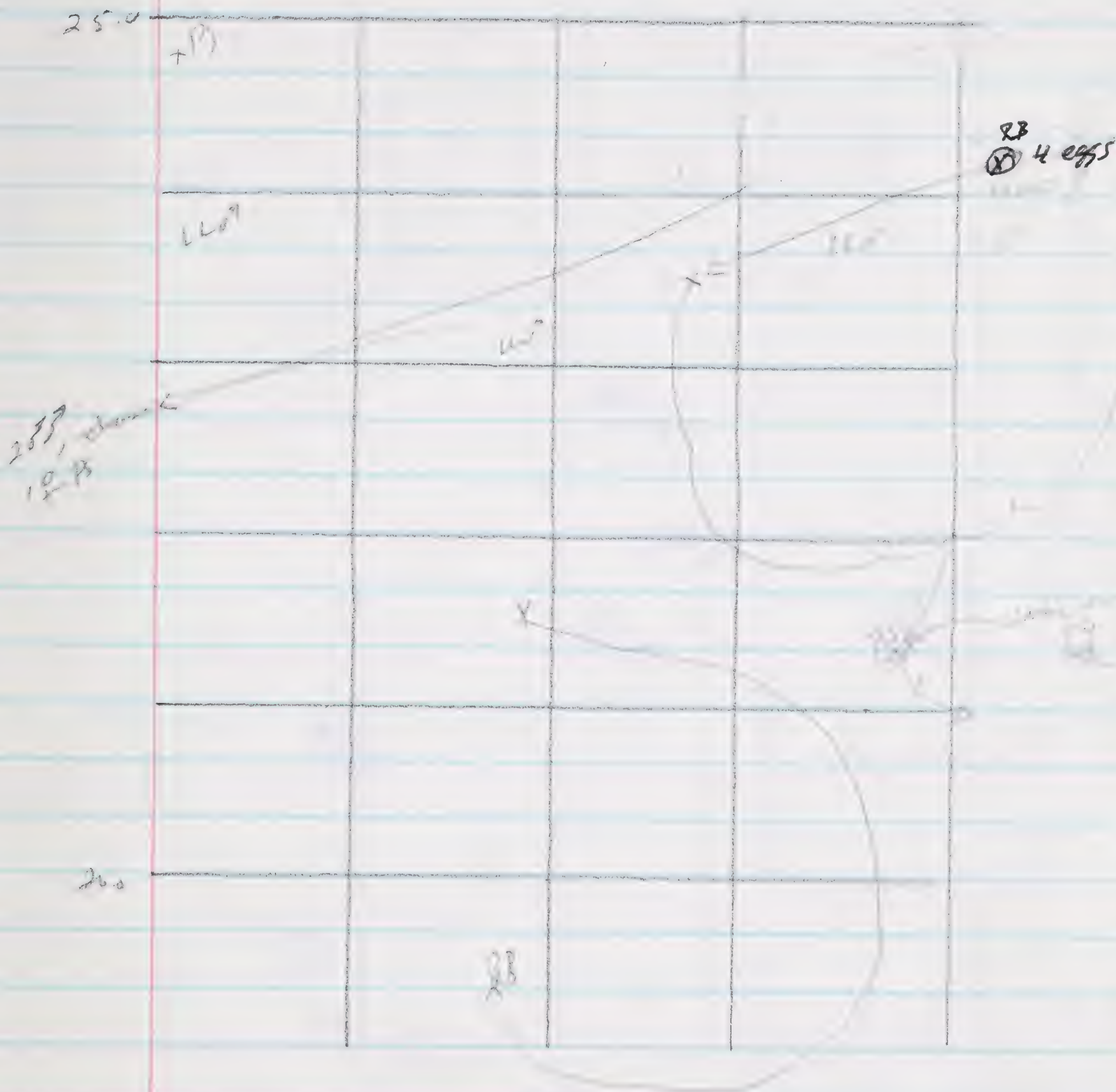
*RB

Ⓡ PS
30995

Holmes, R.
1962

3

24 June Ikravik



Holmes, R.

27 June 1962

Akronik

100

x⁸PS

⊗GP
4 eggs

⊗RP
4 eggs

⊗RP
4 eggs

⊗RB
4 eggs

500

⊗RB
4 eggs

xRB

⊗LL
5 eggs

xGP

xprRP

⊗RP
1 egg

xRP
1 egg

500
PS
0.0

xRL

Holmes, P.
1962 20.0

LLP
e

27 June
Shroavile

15.0

GP 4 eggs
fine

GP 4 eggs

GP

GP 4 eggs
fine

4.75

3.75

10.0

2.0

2

جی

2510

403/25

♂
44-2

24

XPR

92

② PS
4045

QLL
1995

20.0

Holmes, R.
1962

16.0

RB
RJ
separated

7.

2 July - Skowet

0900-1400



50

① GP
4 eggs
♂, ♀

② RP
4 eggs
♂

③ RB
4 eggs

④ RP
4 eggs
♂

x RB
4 eggs

① LL
♀ 6 young

x RP
1 egg

① RP
4 eggs

0.0
x 2 RB

Holmes R. 206
1962

2 July - Ithaca

⊗ RP
2 eggs

RB
n

⊗ BL gone

40+
8PS

7
6000 PS

⊗ GP
gone
no sign
adults

⊗ PS
4 eggs - 9

7887 12207
19.12

Hdmes, R.
1962

h

2 July
Ikroavik

RB?

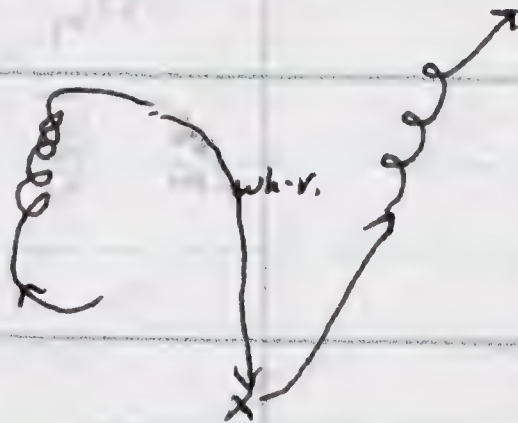
⊗ RP
4925

⊗ PS
gone

x
when

45ps

⊗ all
all young
J+?



Holmes, R.
1962 200

5 July -
Ikroavik

⊗ PS
3 eggs
♀

⊗ RP
4 eggs

⊗ RB
4 eggs
→

⊗ LL
empty

⊗ RP
+



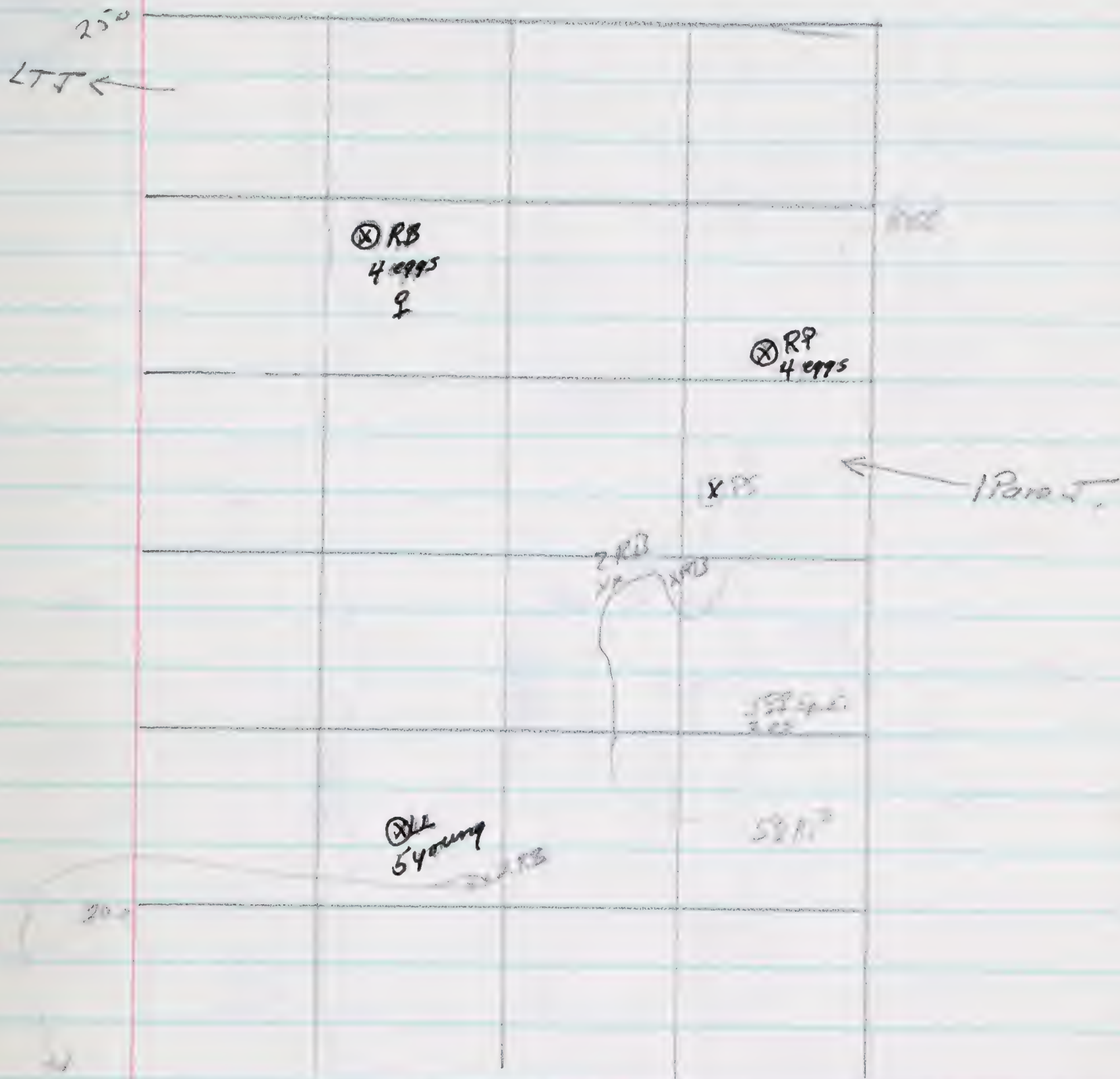
⊗ GR

x PS
4 eggs
♀

⊗ GP
4 eggs

Holmes, R.
1962

5 July - Ikroavik



Holmes, R.
1962

9 July
Skunk

26 P 1 unit
(2 RB
no young)

⊗ RP
empty

⊗ RP
empty

⊗ RP
#7882

⊗ RB
empty

⊗ RB

⊗
4 eggs

⊗ RB
90%

⊗ LL
90%

⊗ RP
90%

⊗ RP
4 eggs

⊗ RB

Holmes, P.
1962

20.0

⊗ PS 2012 LL
9 eggs 1 young
(banded)

9 July
Hawaii

⊗ RP
4 eggs
♂

⊗ RB
4 eggs

⊗ LL

♀
1 young
banded
H. L. 21
from
1 egg

15.0

⊗ RP

SRP

4 RB
banded

10-11
4 eggs 1 young
banded

⊗ PS
4 eggs
♀
→ PS

dark
Pore 3

⊗ RP
4 eggs

⊗ X ♂ ♀ RB
4 young

3.

9 July 250
Shoreville

[illegible]

100

Holmes, R
1962

12 July
Shroard

0800 - 1100

XSP

XGP

XLT

XSP

XSP

XTE

X
SP
1000
7

5.0

XSP

XSP

705

XSP

XSP
49mm
7

Holmes, R
1962

12 July
Shoal

(X) 15

6 LTI

(X) 15

(X) 15
4499

X 10

15.0

X GP
4499

X 15
4499

2.0

3

250

1/2 pint in 2 hours
in 1st stage -
in 2nd stage -
in 3rd stage -
in 4th stage -
in 5th stage -

240

42

252

Expt

100

2

Holmes, R. 100
1962

16 July
Shroavik
890-1030

1.

100

100

100

100

100

100

20.0

Holmes R.
1962

16 July
Akroavik

EXP
gone

XRB
empty

↑

TPS
↑

75.0

7.67
2/10

XPS
3000-18.0 p.p.m.
1.00
E-11.2 d.c.
cell X-
- 1.00
- 1.00
- 1.00
- 1.00

187
188

20.0

at 1000 ft
at 1000 ft
at 1000 ft
at 1000 ft
at 1000 ft
at 1000 ft
at 1000 ft
at 1000 ft
at 1000 ft
at 1000 ft

8.11.12
4.11.12

20.0

INSECT SAMPLING
1962

Holmes, R.
1962

Insect Sampling

31 May Barrow, Alaska

Two samples taken from Britton's Area where a number of polygons are exposed & ponds are starting to open up. 1 to m^2 sample taken from a pond edge in the high center polygon area. - contained 5 Pedicia. Another sample taken 5' away on a higher polyg - no discernable insects. A pair of RDBs was inhabiting the area. Both these plots were grass & for covered.

2 June - 2 samples taken from grass-sedge slope - One north side of Wabersby Slough - where 2 Diver were shot. 1 contained 5 Pedicia. None seen in the other sample - taken 5' away.

5 June Permafrost level on open slope is about 1 inch or less.

9 June Direct plots have been covered by snow but today most of the polygons & tapers have become exposed; the ponds, however, are still deep - snow - only the tops of stalks are showing. Snow is becoming quite soft through & there should be less soon.

8 June 3 soil sod samples taken from bluffs - several Pedicia & 1 Tipula - see sample sheets.

9-13 June - Most of these days were bright & sunny - & the snow literally disappeared. Many ponds beginning to open. - 1 sample taken today

Holmes, R.
1962

Insect Sample - #1

June 13 Barrow, Alaska

at the insect plots - only ponds A, F, J were open. The remainder are still snow covered in.
Sample #1

Pond A - connected to A' - $25 \times 50'$ - water level at 4.0 (3" below color) - ice covers 50% of pond mostly below surface. Water Temp = 5°C - permafrost level = $1\frac{1}{2}'$. Sample on F side

P-B - top of stake just showing - other were all in pond - open water

P-C - Pond edge frozen - some open water in center - underlain by snow or ice

P-D - frozen - in edge with some water but bottom frozen & icy

P-E - top of stake just showing

P-F - 50% covered by snow & ice. pf = $1'$ - Temp = 20.0°

P-J - 5% water - 95% snow & ice - Temp = 5°C
pf = $\frac{1}{2}"$

Holmes, R.
1962

Sample #2

16 June Barrow, Alaska

Pond-A. - No ice or snow - ponds are now separated
in half (A & A'). Pond-A is ~30' in diameter.
12.8°C, p.f.r. = 3". Level - ?

Pond-B - 90% of bottom covered by ice - water on top -
p.f.r. = 1½" - Temp = 4.0°C

Pond-C - 50% covered by ice - with water on top
temp = 7.20°C p.f.r. = 2" - level at 6.0

Pond-D - 50% covered by ice - under water
temp = 9.8°C; level at 7.0 p.f.r. = 2.5"

Pond-E - 70% ice + snow - mostly under water - but
30% of bottom at surface. Temp = 6°C; level at 8.0
p.f.r. = 1.0"

Pond-F - No ice. level at 4.0 - 12.8°C, 3" p.f.r.
#1 is now 2' from water's edge

Pond-J - 5% with ice - mostly under water -
p.f.r. = 3.0" ; level at 4.8; temp 12.7°C

Pond-G - 10.2°C - p.f.r. = 2" - 50' diam. - 50% ice - under water

Pond-H - 7.8°C - p.f.r. = 2" - 30% ice - under water

Pond-I - 10.6°C p.f.r. = 2" - no ice

Holmes R.
1962

Sample #3

21 June Barrow, Alaska

1800-1900. Weather overcast, 10 mph E wind.

P-A - 7°C - ph at 4" - level at 4.0. level of
sample = to #7

P-B - 6.5°C - ph at 2" - level at 5.5 - 20' dia.

P-C - 6°C - ph at 2.5" - level at 5.7

P-D - 7°C - ph at 2.5" - dia = 30' - separate
from D'

P-E - 6°C - ph at 3" - level at 7.5 - sample
2 feet below #2.

P-F - 5.8° - ph at 3.0" - level at 4.0 -
40' in diameter

P-G - 6°C - ph at 3" - level = 5.0
diameter = 40 x 60'

P-H - 40 x 40' - 6.0°C - ph at 0' - some
emerging vegetation

P-I - 6.4°C - ph at 3" - 60 x 30' diameter

P-J - 6.1°C - ph at 4"

The ice was ^{not} present in any of the ponds - ~~some~~
snow was completely gone from the tundra
in this area.

Holmes, P.
1962

Sample #4

25 June Barrow, Alaska

Samples taken by Henir - 1430-1530 - day clear
with 8-10 mph NE wind.

P-A - 13.0°C.

P-B 13.8°C - level at 5.1

P-C 13.2°C level at 5.5

P-D 13.1°C level at 5.8

P-E 13.8°C level at 7.3

P-F 13.8°C level at 3.5

P-J 11.4°C - level at 4.5

P-G - 13.8°C

P-H - 12.8°C

P-I - 12.6°C

~~Sample #5~~

Holmes, R.
1962

Pinel Sample #5

29 June Barrow, Alaska

P-A - 15.60°C - $\rho h = 8"$
P-B 14.40°C $\rho h = 5"$ level at 4.7
P-C 14.40°C - $\rho h = 5"$ level at 5.2
P-D 16.00°C - $\rho h = 5"$ - level 5.5
P-E 13.60°C $\rho h = 5.5"$ level at 7.0
P-F 13.60°C $\rho h = 6"$ level at 4.3
P-J 14.80°C $\rho h = 5"$ level at 4.4

P-G - 14.80°C - ρh at 5"
P-H - 13.80°C - ρh at 5" sample H in I
P-I - 15.20°C - ρh at 6" bag + uncover

Sample K C

3 July

- Take by J. Q. Hines - 1330 - 1500.

P-A - 13.0°C $\rho h = 8"$ - water 10" below color on stake
P-B 11.20°C $\rho h = 5\frac{1}{2}"$ - level at 4.8
P-C 11.80°C $\rho h = 5\frac{1}{2}"$ - level at 5.2
P-D 11.20°C $\rho h = 5"$ - level at 5.5
P-E 12.10°C $\rho h = 5\frac{1}{2}"$ - level at 6.9
P-F 12.80°C $\rho h = 5"$ - level at 3.1 - 3.2
P-J 11.00°C $\rho h = 5"$ - level at 4.3
P-G 12.60°C $\rho h = 5"$
P-H 12.80°C $\rho h = 6"$
P-I 12.80°C $\rho h = 6"$

Holmes, R
1962

Pond Sample # 7

7 July Barrow, Alaska

Day warm + "mosquitely" - light warm westerly
wind during the afternoon. Sample taken
by J. Q. Hines

P-A	- 16.4°C	level at 10"	- phr at 12"
P-B	- 17.8°C	level at 4.5	- phr at 9"
P-C	- 17.8°C	level at 5.0	phr at 5"
P-D	16.5°C	level at 5.4	phr at 6"
P-E	17.0°C	level at 6.7	phr at 12"
P-F	20.0°C	level at 3.0	phr at 5"
P-I	16.5°C	level at 4.0	phr at 4"
P-G	16.0°C	—	phr at 6"
P-H	17.8°C	—	phr. at 6"
P-J	- 18.6	—	phr at 4"

Sample # 8

11 July Day overcast - cool E wind (3-8 mph). Sample
taken by J. Q. Hines.

		<u>level</u>	<u>phr</u>
P-A	13.2°C	12"	12"
B	13.2	4.3	10"
C	13.2	4.8	10"
D	13.4	5.0	11"
E	13.2	6.3	14"
F	13.0	2.8	5"
I	13.1	3.9	10"
G	12.8	-	6"
H	12.0	-	8"
T	12.0	-	7"
K		4.0	

Holmes, R.
1962

Pond Samples #9

15 July Barrow, Alaska

Weather overcast. Light easterly wind.

P-A - dry at stake - ground level = 2.0
pfr at 15" . Temp = 13.20°C . Pond is 10'
in diameter with black mud showing
at edges + at spots in the center. Only
inches deep - at the deepest.

P-B. level at 4.0 - pfr at 12" T = 13.0°C
15' in diameter. mud edge with only
sparse Ruppia near the edges

P-C Temp = 11.9°C. pfr = 14" . level
at 4.8. Pond 15 x 40' - appears deep,
no vegetation in the center - black
mud. edge becoming mossy mud.

P-D - temp = 10.8°C - pfr at 14" . level at 5.0
20 x 40' - grass edge - deep - no vegetation
beyond edge.

P-E . Temp = 13°C, pfr at 24", level at 6.0.
10' x 10'. 1 or 2 inches deep at maximum,
much moss showing at the surface.
Mud + moss edge

P-F - Temp = 11.8°C, pfr at 8", level at 3.8
30 x 36' - much Antyphella showing from
the pond

P-J. Temp = 12.8°C, level at 3.8, pfr - 12"
60 x 30' - much Antyphella scattered
through the pond.

Holmes, R.
1962

Pond Sample # 5

15 July Barrow, Alaska

P-G . Temp = 11.2°C pdr at 8". 40x20'
grass + litter edge - muddy masses of
debris. little insect life. Arctophila
sticking through.

P-H Temp = 10.8°C pdr = 10". 40x40' -
no vegetation in the center - black
mud bottom. edge is smattered
dead grass with scattered
growing Dupontia!?)

P-I Temp = 11.2°C pdr at 12" - center to
1/2 grass - edge - grass - rock
mud - litter bottom.

P-K - 12.2°C . pdr at 14" + . 60' long +
20 → 10' wide - edge just been
mud - bordered by tall Dupontia -
no vegetation in center

P-M - 11.8°C - pdr at 12" - 1/2 mud : 1/2 water

POND SAMPLE #10

19 July Weather has been warm + clear during the
last three days - but a decreasing number
of adult insects have been noted. To day
Mika as overcast + cool but the sun was
out by 11:00 + the wind stopped soon
thereafter. Sample taken during
the last half of the afternoon. Very
warm + warm - 0 → Sample E - no breeze

Holmes, R.
1962

Pond Sample #10

19 July Barrow, Alaska

P-A. Temp = 18.8°C . level at ground (2.0) - pbr at 18" +. Pond 10x10' - most moss shown on the entire surface / pond - water 1-3" over 40% / pond area.

P-B. Temp = 20.2°C - level at 3.8. pbr at 18" + still same size (~15x15') - no mud - moss shown in pond but agglum at the edge.

P-C. Temp = 17.9°C . pbr - 18" +. level at 4.8 (level / pond bottom = 3.5). No moss shown - mud near edges.

P-D. Temp = 17.8°C . level at 5.0 - pbr 18" +. dry - no moss shown through.

P-E. level at 6.0. Temp = 18.8°C . pbr - 14" + 1" dry at most - moss shown through 75% / pond surface.

P-F. T = 20.2°C . level at 2.7. pbr = 15" +.

P-J T = 17.8°C level at 3.7. " "

P-G T = 15.2°C pbr - 12".

P-H T = 19.8°C " " +

P-I, T = 18.8° " 15" +.

P-K - T = 21.8° level at 3.5. 3' / moss shown at east end - also some at west side.

P-M - 20.7°C - level dry - $\frac{1}{2}$ mud + $\frac{1}{3}$ water. (water 6x10').

Holmes, R.
1962

Pond Sample #11

23 July Barrow, Alaska

Weather clear; 10-15 mph east wind. - cold.

P-A - temp = 14°C - level - dry

P-B " - 15.8°C " = 3.8

P-C " - 13.8°C " = 5.6

P-D " - 14.7°C " = 5.8

P-E " - 17.0°C " = 6.8

P-F " - 13.5°C " = 2.5

P-J " - 13.7°C " = 3.7

P-G " - 15.6°C

P-H " - 13.8°C

P-I " - 14.4°C

P-K " - 16.0°C level 3.0

P-M " - 15.1°C level - dry

-Ponds still quite dry - & becoming smaller all the time. The slight rain on 20th - seemed to produce little effect.

Holmes, R.
1962

27 July Barrow, Alaska

Point A - $\mu = 17^\circ$ - (distance 3.4 ft from
surface to deep layer - (Hole 100m 2.5)

Temp. -3.0°C - (Packed - (Hole 100m 2.5)



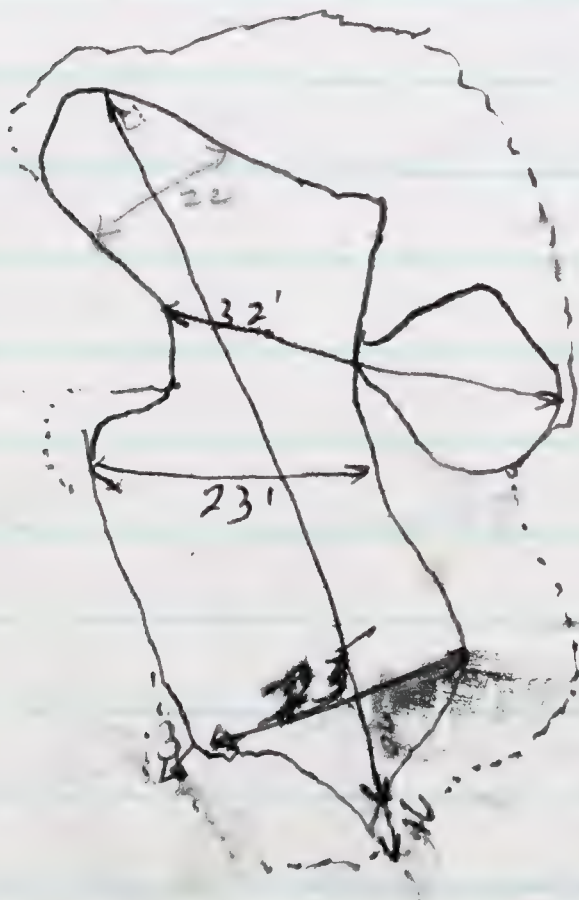
Holmes, R.
1962

27 July Barrow, Alaska

Point B - pfr = 15.5" - level = 4.0 - Temp = 10°C



P-C - pfr = 17.5" - Temp 9.4°C level = 5.30
Kaltf's thermograph



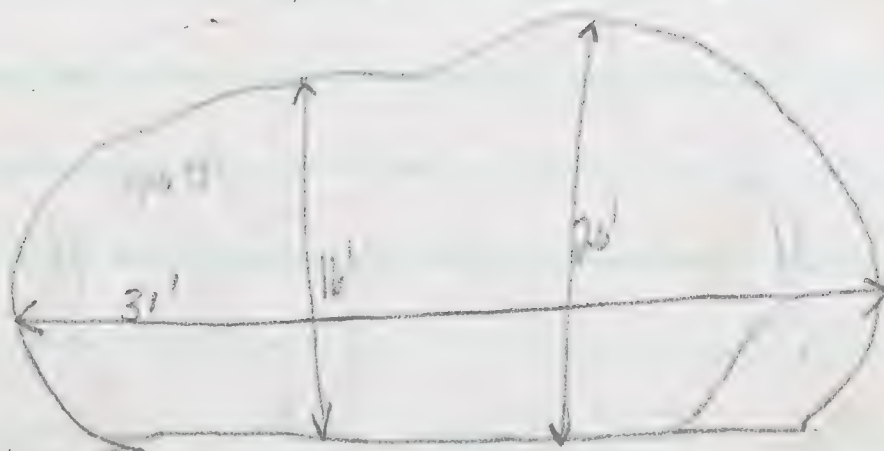
Holmes, R.
1962

27 July Barrow, Alaska

P-D $\phi_{bv} = 16^\circ$ - level at 5.3, Temp = 9.2°C



PE- $\phi_{bv} = 17.5^\circ$ - level at 6.7 Temp = 10.6°C



NE

Holmes, R.
1962

27 July Barrow, Alaska

P-F - pbr at 10" - Temp = 9.4°C level at 2.8
(3 hole by ground line - put hole in wet 3.0)

P-J - pbr at 16.5" - Temp = 9.0°C level 3.8

P-G - pbr at 11" - Temp = 9.4 level 3.8

P-H - pbr at 11.5" - Temp = 9.2 level at 5.0

P-I - pbr at 10" - Temp = 9.6 level at 4.8

P-K - pbr at 10" - Temp = 9.8°C level at 4.0

P-M - pbr at 10" - Temp = 9.8°C level at 2.8

Holmes, R.
1962

Pond Sample #13

21 July Barrow, Alaska

1330 - 1600. Sample taken by Hume + I +
Ponds & lowlands were measured.
Weather warm + light rain.

	<u>Temp</u>	<u>Level</u>
P-A	6.2°C	2.7
B	5.2	4.5
C	5.0	5.5
D	5.6	5.5
E	6.4	6.9
F	4.8	3.9
J	5.1	3.9
G	5.4	3.9
H	4.6	5.5
I	5.7	5.0
K	5.8	3.3 (knocked down - put upright)
M	5.8	3.0 (post toppled)

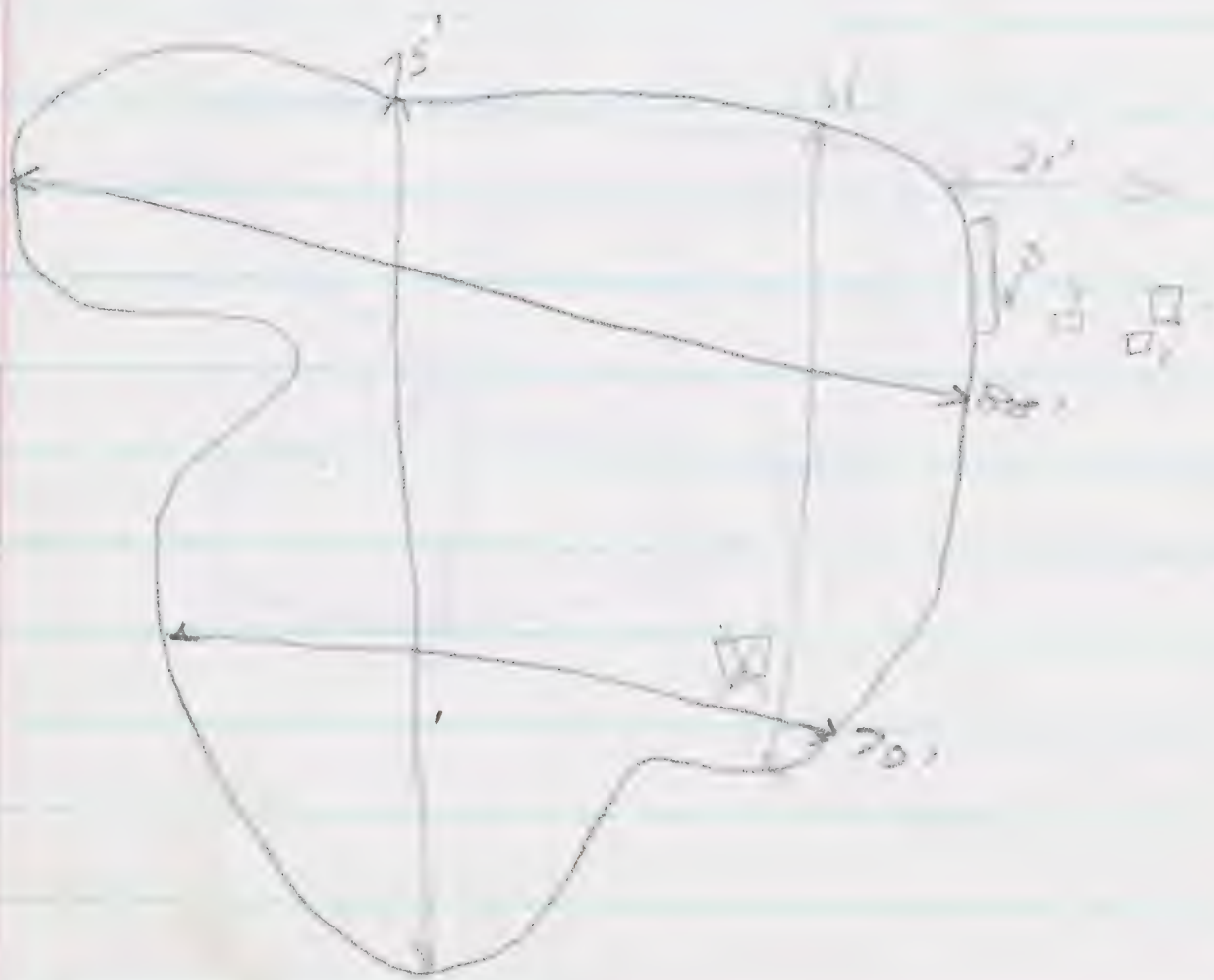
Holmes, P.
1962

P-F

31 July Barrow, Alaska

P-F

- center - closed circle - not Antarctica
- Kait's unusual unusual



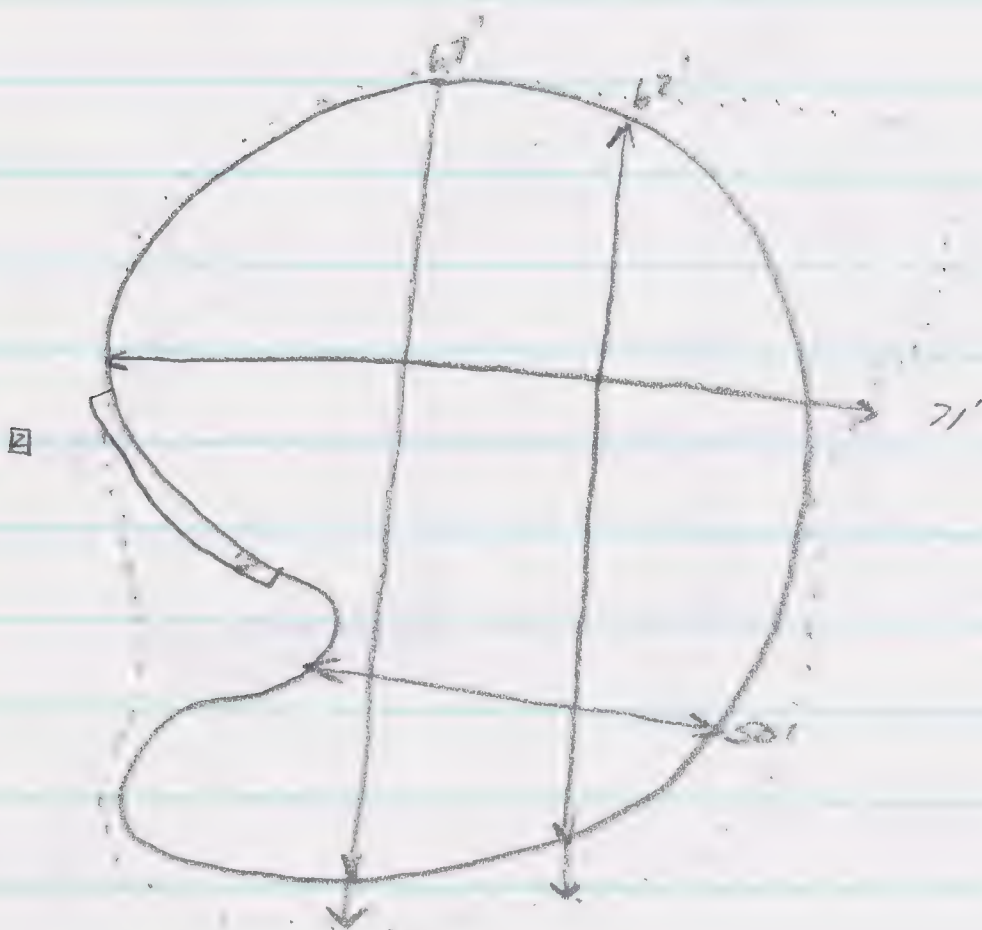
N

Holmes, R.
1962

P-G

31 July Barrow, Alaska

P-G - Arctophila - dotted in the center

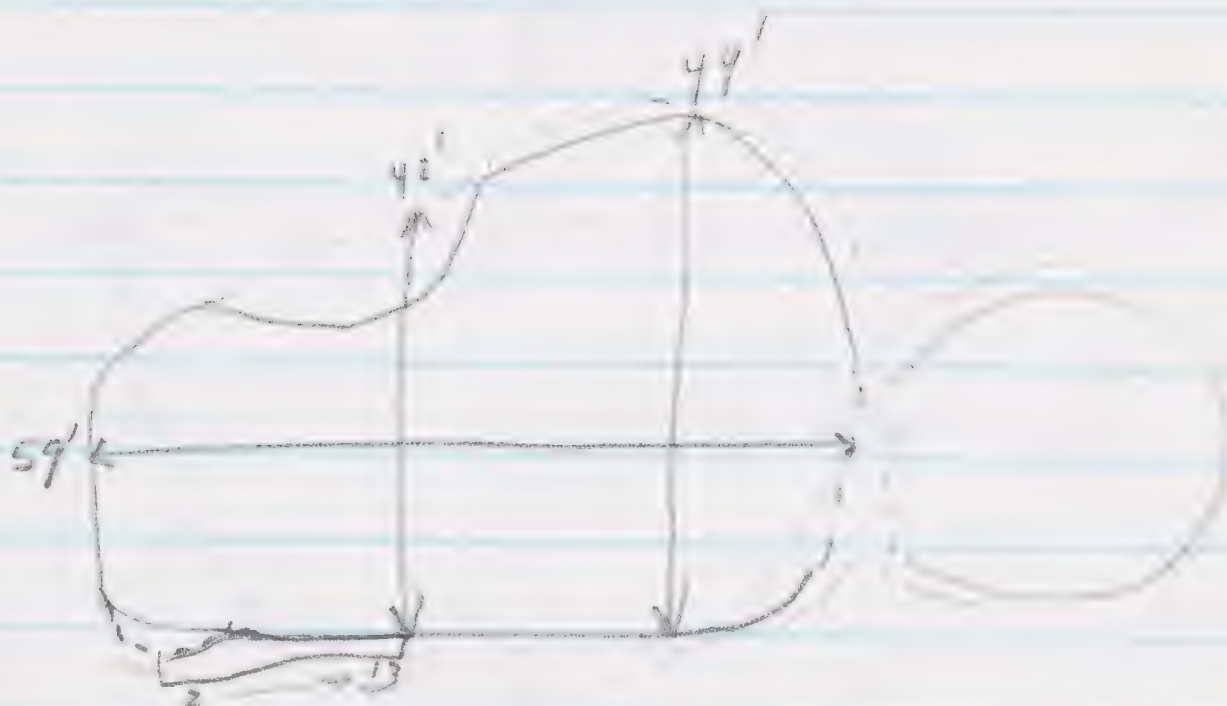


Holmes, R.
1962

P-H

31 July Barrow, Alaska

P-H - No Arthrochorda - clear of vegetation until
tall DuPontia at edges extends
2-3 feet into the water.

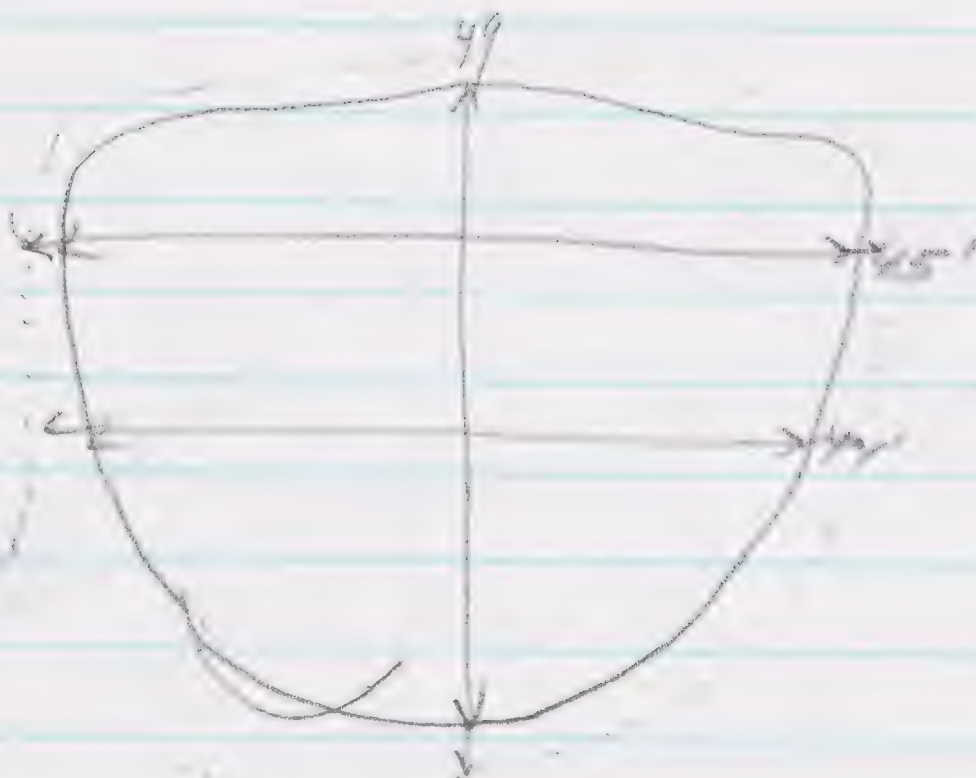


Holmes, R.
1962

P-I

31 July Barrow Alaska

P-I - No. Antelope - clear cut
but tall grass around edge -
for 3-5 feet out from edge
(dotted line) - small
part of NE - very low
down up at the top of the



Holmes, R
1962

P-I

31 July Barrow, Alaska

Pond - I: Arctophila in 5 containers
Measure the number of



Holmes, P.
1962

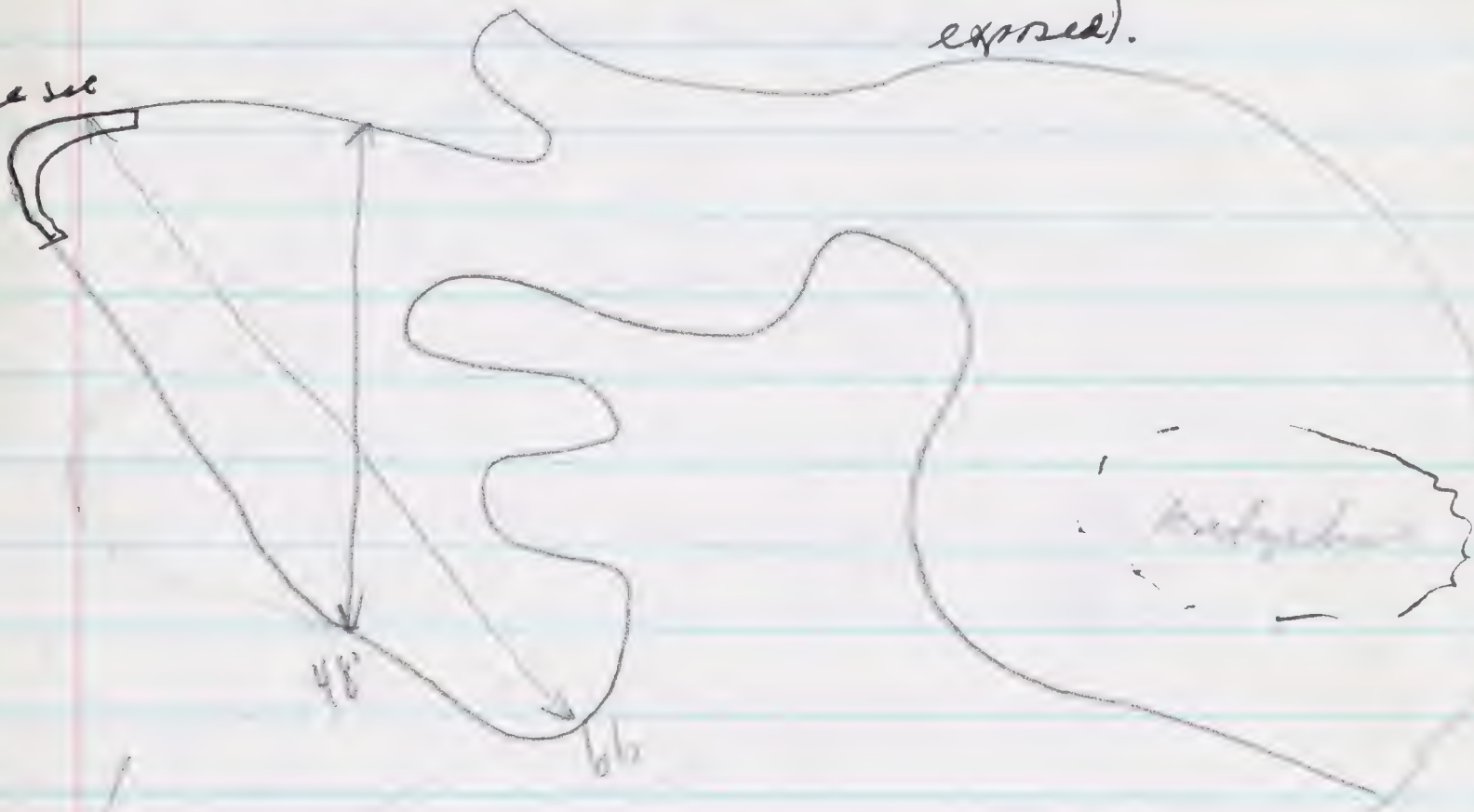
P-k

31 July Barrow, Alaska

P-k

- man sector free of emergent
vegetation. Sample taken at east end -
where today was covered by water (i.e. normal
exposed).

sample site



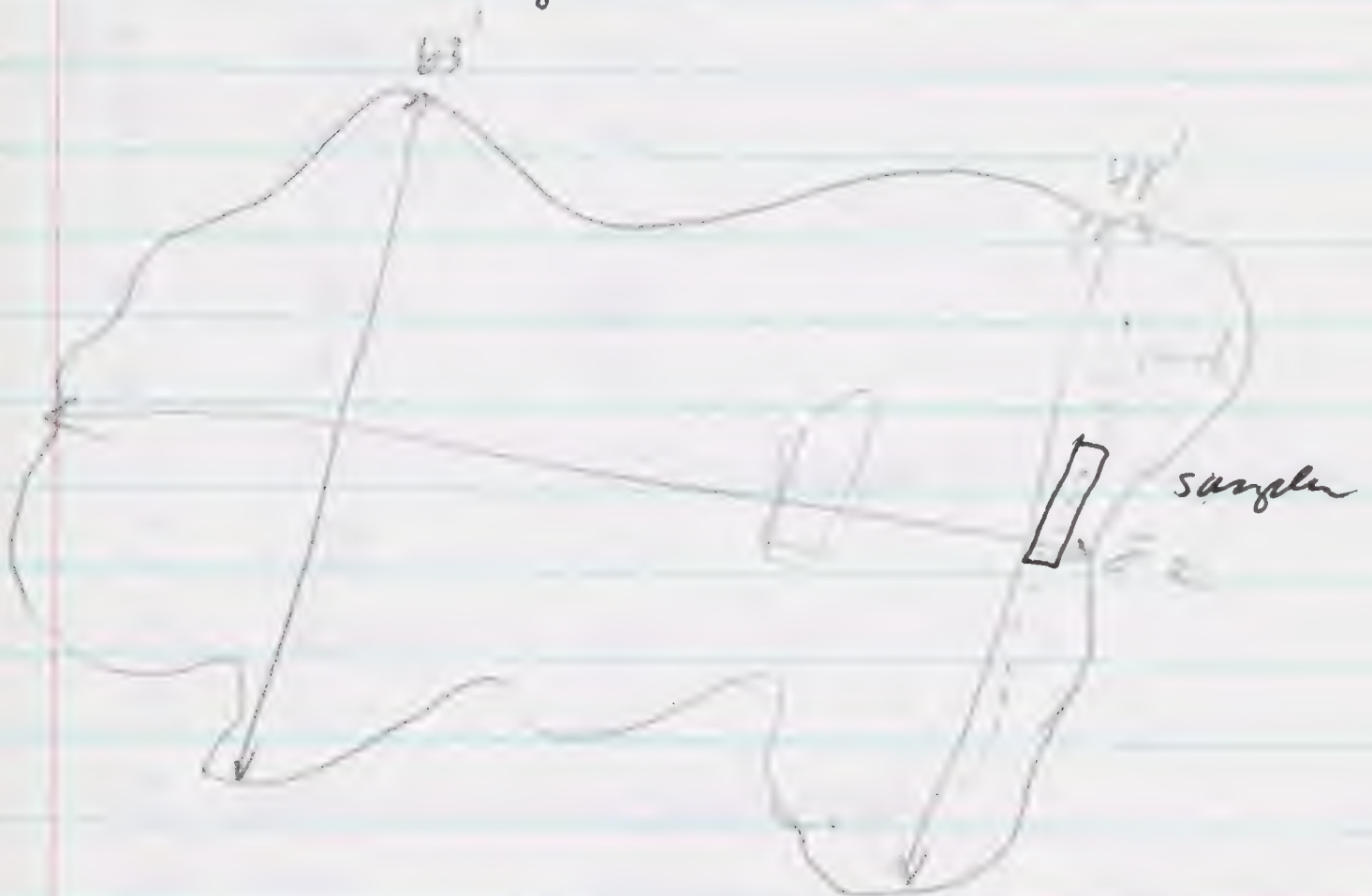
12
12
12

Holmes, R.
1962

P.M.

31 July Barrow, Alaska

P.M. - Some scattered emergent
vegetation but sparse. Pond ^{was} over
half exposed during mid July, not only
water edge has mud visible



Holmes, R.
1962

Pond Sample #14

24 Aug Barrow, Alaska

Weather overcast with occasional light sprinkles - light N orth wind. Heavy rains during the last 4 days.

	Temp (°C)	level
P-A	11.0	3.0
B	10.0	5.1
C	9.8	6.0
D	9.6	5.8
E	9.8	7.3
F	11.4	4.9 - sample taken 8' above #13 (held water to #1)
J	9.8	4.3
G	10.8	4.5
H	11.3	5.6
I	11.0	5.7 (moved to 5.0)
K	12.0	3.5
M	11.8	4.0

} sample taken - mud edge - soil
rest is under water

9 Aug

Barrow, Alaska

SAMPLE #15

Weather: windy, overcast, intermittent rain - warm (~50°)

Sample taken by J. Q. Hume

P-A	3 1/2	-	13.8°	G	4.8	13.8
B	5 1/2	-	11.8	H	6.3	14.2
C	6.0	-	13.8	I	5.1	14.4
D	5.8	-	12.9	K	9.8	14.0
E	7.2	-	13.8	M	4.5	14.2
F	5.0	-	14.2	} sample taken under water		
J	4.5	-	12.2			

Holmes, R.
1962

Pond Sample #16

13 Aug Barrow, Alaska

Sample taken 1430-1500. Weather: broke overcast - 5-8 mph east wind.

A	12.6°C	3.5
B	13.2	5.5
C	15.6	6.0
D	13.6	5.9
E	14.0	7.0
F	14.4	5.0
J	11.2	4.7
G	14.8	4.9
H	13.8	6.3
I	14.2	5.1

Ponds k+m not sampled - since all muds covered with more than 2" / water.

17

17 Aug Barrow, Alaska

Sample taken 1430-1500. Weather - overcast, light SE wind

A	9.0	3.6		
B	9.6°	5.5	G	9.0° 4.9
C	11.0°	6.0°	H	10.8° 6.3
D	10.4	5.9	I	9.6° 5.2
E	9.8	7.0		
F	9.2	5.0		
J	10.6	4.8		

Holmes, R.
1962

Pond Sample #18

22 Aug BARROW, ALASKA

Weather: overcast, & snowflurries. Samples taken
1430 - 1530. Permafrost measurement taken
with probe

	PF	level	Temp
P-A	21"	3.6	9.0°C
B	15	5.5	9.2
C	20.5	6.0	7.0
D	20	5.8	7.0
E	20.5	7.0	9.6
F	14	4.8	8.8
J	21	4.8	8.6
G	15	4.9	8.0
H	16	6.4	7.8
I	15	5.0	8.2

27 Aug

Barrow, Alaska

Pond Sample #19

Weather overcast - 10 mph NW wind. Temp = 40°F

P-A	3.8	5.8°C	North level of #1 - change of 5'
P-B	5.5	6.0°C	" " " " - change of 4'
P-C	6.0	5.8°C	" " " " - change of 1 1/2'
P-D	5.8	5.2°C	level even throughout - (possible change of 1-4")
P-E	7.0	7.4°C	back to level of #1 - 10'

Change during season

P-F	5.0 (changed to 4.9)	5.6°C	level 2' below #1 - change of 8'
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P-I	4.8	5.6°C	level back to #1 - change of 2'
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Holmes, R.
1962

Pond Sample #19 - con't.

27 Aug Barrow, Alaska

P-G 5.0 - 5.8°C - level 1' below #1 - change 17'
P-H 6.5 - 5.8°C - " back to #1 - change 11'
P-I 5.4 5.8°C - " " " - " " 3'

Ponds F → J - mostly sphagnum (GI + J) on
course - blocked more (F, J, H)

1962

Notes on Insects from Samples

5 Aug - Pedicia larvae seen to be deeper in the soil -
in the thick mass of roots - 1 to 5 cm
below the surface - whereas - most
Prionomera are right at or under a
surface - in upper 1 cm. There is
also a few of Tipula too - These seem to be
right at the surface

Sample #14 taken yesterday - at P-K & on -
produced almost nothing - probably due
to sample in unfavorable site - where
samples are not productive (i.e. - the
sample was not decay mass - not
mud - in K - it was as with m

Holmes, R.
1962

Observation Plots - #1

Weather clear - with 8-10 mph
NE wind

24 June Barrow, Alaska

O-P-A - #1 - 1430 - 1500

1 long-winged - small dark fly (brown wings) ~~Sawfly~~

Slv. small milk & collembola

O-P-A' - 40' - N. of A - sedge & moss in polygonal

1500 - 1510

1 midy - Ad. ? - coll.

1 bumblebee

O-P-B - 1500 - 1520. - water lily plants - moss patches
2 spiders

1 small brown winged fly - in A - ~~Sawfly~~

O-P-B' - 20' - S.E. of B - same trough - 1520 - 1530

2 spiders

1 bl. larvae (shiny - Hemiptera ?)

O-P-C - 1535 - 1545

3 shiny black larvae - 1 coll. - Ad. beetle - staph.

1 large " " (?) - coll. Sawfly

O-P-C' - 1545 - 1555 - 15' - S.E. of C - same habitat

1 spider

1 sm. bl. bel fly - coll. sawfly

O-P-D - 1555 - 1605

1 bl. beetle - coll. - staph.

1 spider

O-P-D' - 1605 - 1615 - 40' - E of D - same habitat

1 spider

Holmes, R.
1962

Observation Plat - 2

29 June Barrow, Alaska

Weather: clear (few clouds in distance) - Sunny - 10 mph E. wind

OP-A - 1410-1420

1 very small bl. fly

3 sawfly

OP-A' - 1420-1430. ~8' SW of A - similar veg. - per
1 ^{very} sm. bl. fly more grass

~~8~~ Tipulidae Ad (2 wingless (1 large winged)
1 med. "House" fly - mature wingless

1 small Tipulid Ad - coll. - wingless

OP-A'' - 1430-1440 - 30' west of A - more Salix

1 med. House fly-like - coll.

3 sawfly

1 very sm. bl. fly

OP-B 1440-1450

1 Staph beetle Ad

1 Hemipteran - Ad

1 Sawfly

OP-B' - 1450-1500 - 10' S. of B

1 Ad. Chironomid

1 spider

OP-B'' - 1500-1510 - 30' S. of B

1 sawfly

Holmes, R.
1962

O-P - 2

29 June Barrow, Alaska

O-P-C¹ - 1510 - 1520

2 spiders

2 Sawfly Ads

1 lge Ad. chironomid

1 ^{very} sm. bl. fly

O-P-C' - 1520 - 1530. 10' E of C

4 sawfly Ads

O-P-C'' - 1530 - 1538 15' - 50' of C

3 Sawfly Ads

3 Spiders

1 Ad. Chir.

O-P-D - 1540 - 1550

1 Ad. Sawfly

OPD' 20' E - 1550 - 1600

4 Ad. Sawfly

OPD'' - 1600 - 1610. - 30' E of D

3 Ad. Sawflies

1 mosquito

30 June Warm - practically cloudless day - with many mosquitos + midges in evidence. Also, large numbers of adult tipulids seen near the ponds in Central Marsh.

1 July low overcast all day with some rain + fog

2 July scattered rain showers - clearing toward evening.



Holmes, R.
1962

Observation Plots - #3

3 July Barrow, Alaska

Weather partly cloudy - some sunstreaks. Wind blowing 8-15 mph. No. winds - cold. Snow flurries during the morning

OP-A - 1330-1400.

3 Ad. midge
2 Ad Sawfly
2 sm bl. fly

O-P-A' - 30' SW of A - 1400-1410

2 lge Ad Tip. (winged unless stated otherwise)
2 "House" Flies
4 Sawfly
2 small black flies
1 spider

O-P-B - 1410-1420

1 med-sized Ad. Tipulid
3 Sawfly (1 wingless)
2 sm. bl. flies

O-P-B' - 30' SW 1420-1430

2 sawfly
1 Ad. crane fly

OP-C - 1430-1440

3 sawfly Ads
1 midge Ad

OP-C' - 18' W 1420-1450

3 sawfly Ads
1 midge Ad

OP-D - 1430-1500

3 sawfly (1 wingless)
2 sm. bl. flies
1 brown-winged fly } coll.
1 med. bl. fly } - - -

OP-D' - 40' E - 1500-1510

1 med. bl. Tip? - coll.
3 med bl. - 1 coll in D
2 sm bl. flies
2 sawfly

Holmes, R.
1962

Observation Plot - #4

7 July Barrow, Alaska

Weather clear with 3-8 mph west. wind. - Windless

This a.m. - with many mosquitoes?

OP-A - 1350-1400.

3 sm. H. flies

1 med H. fly (coll. lat + tip)

OP-A' - 10' So.

3 sm. bl. flies

2 med bl. flies

2 lge. Ad. Tip.

OP-A'' - 20' SWS

8 Sawflies

3 sm. bl. flies

2 lge Ad Tip

3 Sawflies ✓

2 " House flies

sew mosq.

1 Ad. midge

sew. mosq. (12+)

2 Ad. midge

1 large bee

OP-B - 1420-1430

6 sm. Ad. Tip. (Pedroia) - 1 coll.

6 Sawflies

4 sm. bl. flies

1 lge Tip

1 Ad. mosq

1 Ad. Carabid

mosquito - 12+

OP-B' - 6' N.B. -

6 Sawflies

6 sm. bl. fly

3 sm. Ad. Tip

2 lge Ad Tip

3 lge Ad. wingless fly

3 House fly

12+ mosquitos

OP-B'' - 10' So. - sawflies - 4

2 - lge wingless Tip - spider - 1

3 sm. Tip

- sm. bl. flies - 6

1 Ad. midge

- sm. bl. wingless Tip.

tick - 2

(coll. - went up)

mosq. - 12+

Holmes, F.
1962

O.P. #4

2.

7 July Barrow, Alaska

OP-C 1530-1600

2 Ad. midge 7 sm. bl flies 6+ mosquitoes

6 sm Ad Tip. 1 wingless Ad. Tip

2 sawfly 1 med. bl. fly

OP-C' 10' NW

3 Ad. midge

3 sawflies

12+ mosquitoes

4 sm. Ad. tip

6 sm bl. fly

1 bl. wingless
Tip. ?

1 lge Ad Tip

1 brown-winged med fly

OP-C'' 10' SE

1 sm Ad. tip

10+ mosquitoes (incl. tim grave)

3 sawflies

5 sm. bl. flies

OP-D-1520-1530

4 sm Ad. Tip.

4 sm. Ad. bl. flies

3 Ad. Sawflies

1 lge Ad. Tip.

1 spider

6+ mosquitoes

OP-D'-25'E

2 Hemiptera

4 sm bl flies

6 sm. Ad. Tip.

1 lge wingless Tip

3 Ad. Sawflies

12+ mosquitoes

OP-D'' 30'E

1 lge sm Ad Tip

- 6 sm. bl. flies

3- lge winged Tip

- 6+ mosquitoes

2 spiders

1 bl. wingless Tip? [? Pedicia]

3 sawflies

Holmes, R
1962

OP - #5

1

11 July Barrow, Alaska

Overcast - 35-40°F - 8-7 mph E wind - cloudy

OP-A - 1310 - 1320.

1 ♀ Pedicia

8 - sm. bl. flies

2 ♂ Tipula

6 - sawflies

1 - spider

3 - mosquitoes

OP-A' - 10' S.

1 ♂ Pedicia

1 ♂ Tipula

3 "House flies"

8 sm. bl. flies

4 sawflies

4 mosquitoes

OP-A'' - 30' SW

1 ♂ Pedicia (A - coll.)

7 sm. bl. flies

2 ♂ Tipula

2 mosquit

4 sawflies

2 Ad. moth (coll)

1 hymenoptera

1 caterpillar (coll)

OP-B.

6 sawflies

3 sm. bl. flies

OP-B' - 10' N

3 sawflies

1 ♀, 2 ♂ Pedicia

3 sm. bl. flies

3 ♂, 2 ♀ Tipula

OP-B'' - 20' N

11 ♂ Tipula Ped.

1 Ad. Chir.

3 ♂ Tipula

3 sawflies

1 sawfly

Holmes, P.
1967

OP - #5

2

11 July Barrow, Alaska

OP-D 1410-1420

2 ♂ Tipula 3 sawflies

1 Hymenoptera

3 sm bl. fly

OP-D' - 10' NW

1 ♀, 1 ♂ Tipula 3 sawflies

1 ♂ Pedicia 3 med bl. fly

4 sm bl. & fly

OP-D' - 10' W

3 ♀, 3 ♂ Tipula 5 sawflies

2 ♂ Pedicia 6 sm - bl. fly

1 Ad. midge

OP-D -

4 ♂, 1 ♀ Tipula

9 ♂ Pedicia

8 sawflies

4 - ? med. bl. fly

OP-D' - 15' E

3 ♂ Tipula

6 ♂ Pedicia

1 Ad. midge

3 Ad. sawflies

6 Ad. 8m bl. fly

3 ? med bl. fly

OP-D''

7 ♂ Pedicia

1 ♂ Tipula

1 Ad. midge

3 sawflies

6 sm bl. fly

Holmes, R.
1962

OP-6

15 July Barrow, Alaska

Weather overcast - 2-5 mph easterly wind.

OP-A - 1320-1330.

3 "House" flies (sm.)	4 sm. bl. flies
2 sawflies	1 ? bl. moth fly

OP-A' - 20' NW

1 House fly (sm)	2 sm. bl. fly
2 sawflies	1 unk. bl. fly
1 dying <u>Tipula</u> ♂	

OP-A'' - 40' W

2 House fly (lg) (1 coll)	3 sm. bl. flies
1 ♂ <u>Tipula</u>	
2 sawflies	

OP-B - 1350-1400.

1 pr. Tipula - copulating
8 sm. bl. fly
2 sawflies

1 long-ab. bl. fly
+ 1 ♂ Tipula

1 br. moth (as coll. last OP)
penet

OP-B' - 5' N

8 sm. bl. fly
3 sawflies
2 long-ab. bl. fly

1 spider

OP-B'' - 15' So.

1 ♀ <u>Reducia</u>	3 sawflies
1 dead ♂ "	1 long-ab. bl. fly
6 sm. bl. fly	1 ♂ <u>Reducia</u>

Holmes, R.
1962

OP-6

?

15 July Barrow, Alaska

OP-C - 1430-1440. Weather - wind in to 8-10 mph - SE
- Occasional sun

1 "House" Fly - 1gc

2 med ? flies

1 brown mdr

1 long-ab. bl. fly

3 sm. fl. flies

OP-C' - 30' W

1 "House" fly

3 long-ab. bl. fly - 14 cut

1 mosquito

2 Sarcophila

3 sm. bl. flies

1 spider

OP-C'' - 10' S.

3 sm. bl. flies

1 mosquito

1 hemiptera

1 spider

2 long-ab. bl. flies

OP-D - 1500-1510

1 pr Prionocera - copulating

6 sm flies (3 brown, 3 black)

1 ♀ Tipula

1 spider

1 Ad. Phlebotomus

2 long-ab. - bl. flies

2 lge House flies

OP-D' - 15' W

(3 pyraustean / Tipulids)

2 lge House flies

6 sm bl fl

2 sm brown flies

OP-D'' - 20' E

1 ♀, 1 ♂ Pedicia

3 sm bl fl

1 dead ♀ Tipula

1 spider

1 "House" fly

1 sm bl. midge

Holmes, R.
1962

O-P - #7

4

19 July Barrow, Alaska

Weather mostly clear - with only thin scattered clouds. 0-3 mph - easterly breeze - generally sunny & warm (45-55)

OP-A- 3 sm. House fly #1

1315-1325

6 sm. H. flies

4 mosquitos

OP-A'- 10' So,

3 sm. H. flies

3 lg. House fly

OP-A''- 30' - SW

10+ mosquitos

3 sawflies

3 sm. H. fly

3 sm. House fly - 2 #1 - 1 #2

6 mosquitos

2 lg. House fly

1 sm. House fly #1

OP-B-

2 sm. bl. House fly #1

2 sm. bl. fly

6 mosquitos

OP-B' - 15' N

10+ mosquitos

3 sm. H. flies

OP-B' - 25' N.

6+ mosquitos

1 sm. #1 House fly

2 lg. bl. House fly

2 sm. H. flies

* - seems to be 2sm House fly - 1 mounted (H1) lg. one - rather shiny black - with orange infel. area & quick pupal movements (H1)

Holmes, R.
1962

OP-7 &

19 July Barrow, Alaska

OP-C = 14/5 - 18/25

2 lge House flies

2 sm. bl. flies

OP-C' - 30' SE

10+ mosquito

OP-C'' - 30' So.

4 sm. bl. fly

2 saw flies

4+ mosquito

1 saw fly

6 sm. bl. fly

6+ mosquito

OP-D -

1 sm #2 House fly

1 sm #1 House fly

6+ mosquito

1 saw fly

OP-D' - 10' SE

1 lge House fly

2 long-ab. bl. fly

4 sm. bl. fly -

10+ mosquito

OP-D'' - 30' E

1 Ad. Hemiptera

3 sm. bl. fly

10+ mosquito

Holmes, R
1962

O.P. - 8

23 July Barrow, Alaska

Weather clear - strong (5-15 mph) south-east wind.

OP-A - 1320-1330

1 lge "House" Fly

OP-A' - 10' SW

1 lrg. bl. fly

1 med. bl. fly (sawfly)

1 (1cm) green caterpillar

OP-A'' - 30' SW

2 lge "House" Fly

OP-B - 1350-1400

1 spider

OP-B' - 20' SE

- 1 sawfly

OP-B' - 5' E

1 spider

1 bl. (sm) fly

OP-C - 1420-1430

1 sm bl. fly

OP-C'' - 50' SE
2 spiders

1 sm bl. fly

OP-C' - nothing - 0

- 20' E

O.P.D - 1450-1500 - nothing

OP-D' - 15' E

2 sawfly - (1 coll.)

OP-D'' - 40' SE - nothing (1 Tipulid larva)

Holmes, R.
1962

OP - #9

27 July Barrow, Alaska

Weather overcast - 5+ mph wind (NW) - 80°F - cool - rain or mist
yesterday

OP-A - 1330-1340. 1 sawfly

OP-A' - 15' SE - nothing

OP-A'' - 15' - So. 1 sm. bl. fly

OP-B - 1350-1400 - nothing

OP-B' - 10' - So - "

OP-B'' - 20' - SW - "

OP-C - 1410. - 1420 - nothing

OP-C' - 10' W - 1 sawfly - 1 spider

OP-C'' - 10' So. - nothing

OP-D - 1430 - 1440 - nothing

OP-D' - 10' E - "

OP-D'' - 20' SE - "

Ground very wet - small puddles in nearly all
depressions

10 minutes at stalled plot - 5 minutes
at check plots

Holmes, R.
1962

OP-10

2 Aug Barrow, Alaska

Weather clear & calm all morning - overcast by
1300 - light squalls + 3-10 mph east wind.

OP-A - 0 (1340-50)

OP-A' - 0 - 8' S

OP-A'' - 0 10' SW

OP-B - 1400-1410 - 1 spider

B' - 6' NW - 0

B'' - 12' NW - 0

OP-C - 1420-1430 - 1 sm. fly - coll. - 1

C' - 15' S - 1 sm. bl. fly - deep in litter - coll.
2 lg. "flies" - coll. (1 with yellow spots) - 1

C'' - 30' S - 1 sm. bl. fly - coll. (saw fly?) - 1
1 green caterpillar (saw fly)

1 saw fly

OP-D - 1445-1455 - 2 ♂ Pedicularis, 1 Red. Saw fly

D' - 15' W 1 saw fly - 1 spider

D'' - 30' W 1 " - coll. 504

Holmes, R.
1962

OP-11

6 Aug Barrow, Alaska

Final log - 3-10 mgl - east window

CPA - 1845-55 -

1.5 mgl. Hymenoptera - 1/2 p. 10

A' = 1" - (3" W)

A'' = 3" - (3" W)

CPA - 9:10 - 10:20 - 1 mgl. 10

B' = 1" - (3" W)

B'' = 3" - (3" W)

CPA - 10:20 - 10:30 -

3 mgl. 1/2 p. 10

B' = 1" - (3" W)

B'' = 3" - (3" W)

OP D - 10:30 - 10:40 - 3 mgl. 10

D' = 1" - (3" W)

D'' = 3" - (3" W)

Holmes R.
1962

OP-12

13 Aug Barrow, Alaska

Partly overcast - with some intermittent sunshine
3-10 mph east wind.

OP-A - 1345-1350. - 0

OP-B 1355-1400 - 0 Trough is very moist -
mud is like a wet sponge -

OP-C - 1400-1405 - 0

OP-D - 1405-1410 - 0

Holmes, R.
1962

OP - 13

17 Aug Barrow, Alaska

Weather overcast - fog hanging in distance
cold - SE wind of 5-10 mph

OP-A-1400-03- - 0

OP-B 1410-1415 - 0

OP-C-1416-1421 - 0

OP-D -1427-1427- 0

Holmes, R.
1962

Berline, 1962
(B-2)

Sample

26 June Barrow, Alaska

Vacuum samples taken as before - 30 - 1/3 sq ft
samples from polygon top; trough, ridge & slope &
marsh. - all sorted after 2-5 hours - Berlin.

B2-1 - Top

B2-3 - Slope

B2-2 - Trough

B2-4 - Lowland

29 June Barrow, Alaska

B2-5 - Top

B2-7 - Slope

B2-6 - Trough

B2-8 Lowland

3 July B2-9 - Top

B2-11 - Slope

B2-10 - Trough

B2-12 - Lowland

7 July B2-13 - Top

B2-15 - Slope - machine not working properly

B2-14 - Trough

B2-16 - Lowland

11 July B2-17 - Top

B2-19 - Slope

B2-18 - Trough

B2-20 Lowland

15 July B2-21 - Top

B2-23 Slope

B2-22 - Trough

B2-24 Lowland

19 July B2-25 - Top

B2-27 - Slope

B2-26 - Trough

B2-28 - Lowland

23 July B2-29 - Top

B2-31 Slope

B2-30 Marsh

B2-32 Lowland

machine repaired prior to today's operation -

detritus seen to be water, properly

27 July B2-33 - Top

B2-35 - Slope

B2-34 - Trough

B2-36 - Lowland

2 Aug B2-37 - Top

B2-39 - Slope

B2-38 Trough

B2-40 - Lowland

Holmes, R.
1962

Berlese Samples - 1962

6 Aug. Barrow, Alaska

BZ-41 - TOP

BZ-43 - SLICE

BZ-42 - TROUGH

BZ-44 - LOWLAND

- These may be reversed!

17 Aug BZ-45 - TOP

BZ-47 - SLICE

BZ-46 - TROUGH

BZ-48 - Lowland

machine repaired & working well

R. Holmes
1962 - 1964

Alaska

Journal

1963: Alaska: Barrow, Cape Thompson
Canada: Banks Island
Alaska: Barrow [insect sampling]

Holmes, R.
1963

Journal

27 May Barrow, Alaska

Peiper + I arrived at 1015 this a.m. and were met by D. Mullen + J. Humphrys. After getting settled + having lunch, we went out to the beach ridge - Wohlsehoy Slough + Elsa Lagoon.

The B.R. top is nearly all exposed - one clear strip of tundra 30 to 100 feet wide - with patches of snow only in the deeper ditches + troughs. There was very little bird activity in this section - only 3-4 ♂ + 2 ♀ Longspurs + several Pomarine Jays. Along the north side of Wohlsehoy, large areas ($\frac{1}{4}$ - $\frac{3}{4}$ acre) were exposed - mostly grassy tundra - here several Pectoral Sps + 1 Bairdi were located - as well as 7 Sanderling. Along Elsa Lagoon bluff - more open tundra - with the above species seen + 3 R. Turnstones, 3 Dunlin, 2 Semi-pal Sps., frequent Longspurs + several Pomarine Jays. Courtship activity was seen in SP + PS. Trits were heard from RB + BS + SP - In general the tundra was quiet, however - except for the occasional Longspursong.

The melt-off appears to be 7-10 days ahead of schedule + is progressing rapidly. Weather today (+ in general for the last 3 weeks - D.A.M.) was clear, sunny + warm (40-50°F). Many ponds + water are now seen on the

Holmes, R.
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Journal

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27 May Barrow, Alaska

tundra & The snow is quite soft. Many polyg-
lips are exposed & have been for a week or
more. The equivalent date - for the
start of melt of last year would be
June 6-7.

Lemming sign is spotty - only occasional
an active runway seen in the now-
exposed tundra. The jaeger activity is not
very strong & only 1 snowy owl was noted
today.

28 May Barrow, Alaska

Organized lab in early morning, then walked out
through drum area. Weather clear & sunny,
many large puddles of water & in places, streams
of melt water were pouring into the lower
areas. Saw 2 SP & 2 BS, one of the former was
displaying - see sp. acc'ts. Longspurs were abundant &
their song was heard frequently. Lemming sign
was much better than that seen on beach ridge
yesterday - most of the tundra now exposed
had sign of cut - some the entire area
was mowed, but in most, cutting was
confined to the vicinity of the runways. No
jaeger - or owl noted. - Several lemmings were
seen in the clearing & 2 on top of the snow
running between 2 patches.

In afternoon, drove to Britton's area -

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28 May Barron, Alaska

where snow-free tundra was present - little bird life except 4 PS, 2 RT + sev L.L. + SB. - Then into mud flat - where only 1 Pm. Jaeger was seen. Snow is still covering the stakes at Poles B, D, E. The top of C is showing + the snow level at A is 5.5. Went onto Village Slough - again Pm Jaeger seen occasionally. Returned via Cacheet - where they are now dismantling + along the Voth creek + former loam bluff - sev PT + 1 S. Owl. - otherwise no activity.

This part of the tundra was devoid of shorebirds except the PS + RT seen early in the afternoon. Snow conditions were not as far advanced as one might think - just Britton's area + bluff at Voth creek present any extensive open tundra.

In the evening - drove via beach ridge (where no birds - except Laysans - were seen) to Wohl + Ookpik sloughs. Bluff here were becoming exposed - sev PT, 4-6 displaying ♂ PS, 3 charming RB including 1 aerial display, 2 Bairdi, 2 RT, 4 Snow Geese, 1 ♂ Spectacled Eider. 1 Snow owl in display flight + in ground? Chacalia digby were noted. 1 PS ♂ on beach ridge near Poles. Weather today clear + warm, getting cool in last evening - Poles starting to freeze.

Holmes, R.
1963

Journal

4.

29 May Barrow, Alaska

Peiper + I went to beach ridge - Cooksfield sloughs, E. in Lagoon, took pit + south for about a mile. On b.r. - only 1 PS ♂ was noted. on the bluff, numerous jaegers, + ♂ PS, and 2 RB, 1 BS, 4 RT, 1 S. Owl. Activity was light - only a few PS displays were seen and/or heard. Lemming activity was spotty - several animals were seen.

Afternoon spent in lab working on specimens + preparing insect-sampling data sheet. Cade + Ernest Willoughby, arrived in late morning. In evening, Willoughby + I went to B.R. - took - elson. Saw 1 ♂ + 1 ♀ Snowy Owl near Elson, 4 ♂ PS, 1 ♀ PS, 2 RT, 2 BS, numerous pm. jaegers, long spurs + bunting?

Weather partly clear + warm in a.m., overcast + cool in afternoon - with 10 mph E wind + snow flurries in the evening.

30 May Barrow, Alaska

Morning in lab working on specimens + talking with Cade. After lunch, Muller, Cade, Willoughby + I went to Voth area, near Amosk beach ridge. 2 owls in Voth + 1 near beach ridge at the Gasline, numerous jaegers. 1 RB, 3 SB, 1 BS, 1 ♂ PS - seen near Voth area. Weather overcast but bright - wind cold 10-12 mph from the NE.

Holmes, R.
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Journal

5.

31 May Barrow, Alaska

Drive to EISA bluff + worked south to 2 mi below Ookpek slough. Weather was windy (10-15^{NW} mph), cold + there were snow flurries all morning (which have added snow to the tundra covering up some of the exposed areas - although not significantly) - bird activity was apparently suppressed. - only 1 display - that of a potential sdp. - was noted - no long spurs in display - but numerous feeder pairs were noted.

1 June Barrow, Alaska

Morning in collecting birds along EISA Lagoon, between Brant Pt + Wobleschlag (+ 2 RT - near Ookpek). Weather overcast with 10 mph NW wind + snow flurries - cold - ponds remained frozen all morning. Bird activity was low - 3 ♂ PS, N. 1 Wobl, 3 South - 2 RD, so.; 4 Sanderling. This was total sdp. seen. About 5 pairs of Ruddy Turnstone seen - several collected; nesting was already underway in part of the population. Jaeger seen frequently - 1 Tree Spar.

Afternoon - to Insect plot - where I took soil samples - no birds in this area. Moved to Voth. saw 1 ♂ PS, 1 SP, (also 2 RD - numerous jaegers + long spurs).

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1 June Barrow, Alaska

Melt-off has slowed - not much change in the last 2 days. Pond coverage at inner area has not changed since 29th. Snow flurries during the last day have covered many of the upland sites, although, Bird Bluff, Olsen Bluff, Withersby Bluff (no. side), Voth Cove + Voth Creek Bluff are exposed to varying degrees but all present a long continuous area of open tundra. Bird Bluff, however, is confined to Olsen + Voth Bluff, + mostly to the former (except long end).

Insect samples were picked in the evening.

2 June Barrow, Alaska

In morning, I walked out through the inner area - saw 1 ♂ PS, several Baird, several longspurs + pintails + jaegers. Nothing else. Snow was crusty; many areas covered over by drifting powdery snow. Weather hazy overcast, cold SE wind.

In pm - Welloughly + I went to Ekroavik - described here chronologically. Went directly to Henali Creek (gashie) - saw 16 Pom Jaegers when scanning - went to South Valley Road - where there were 3 Lomaxes.

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2 June Barrow, Alaska

of exposed tundra = 1 700 x 50 yds - had 3
♂ PS, numerous Longspurs + several Chukar
Pomarine jaegers. Another 600 x 100 yds -
3 ♂ PS, 2 ♂ SO - both displaying; The third
was 600 x 300 yds. 5 ♂ PS - at least
3 displaying - all spread - 2 ♂ RO
RO - chasing + 1 displaying - jaeger +
Longspurs. - Cut across to Ikroavik -
north plot still covered with snow,
south ridge becoming partly bare - saw
1 ♂ PS. South of the plot - 1 ♂ PS + 2 RO.
No more shorebirds were encountered -
near south end of lake - headed N
across dry lake to oolipik census area -
saw 2 Golden Plover, 2 RO (attempting to
copulate), 2 ♂ PS, numerous jaeger + Longspurs.
The only snowy owl was seen - below ridge.
Weather clear, with - 10 mph east wind.

Melt off is not far advanced inland -
The areas mentioned are the only
ones large enough to support
birds on the route travelled - so there
is still much melting to be done.

3 June Barrow, Alaska

Morning - lab working on specimens.

In afternoon went to oolipik via
Point Point - Corbulars Island. Weather

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3 June Barrow, Alaska

was overcast - 15-20 mph north wind - cold -
most ponds remain frozen all day
today.

Area between Boat PC & the polygonized
ground, 100 yds north Wobl - was set as a
removal plot. took 4 ♂ + 1 ♀ PS today -
marked 3 RT. Flock of 1 RB were
located close to Oolipik - sev. collected.
Melt off is not proceeding rapidly due to a
cold weather. The bluff have about
50-75 yds of exposed tundra in width &
nearly their entire length.

Evening working on specimens.

4 June Barrow, Alaska

Worked on specimens in morning & then walked
out thru drum area - little activity except
2 BS, sev. C.C., & sev. P. jays. Snow is
gone for most polygons - but area is
still 7/8 covered.

In afternoon - went along beach ridge to
Wobleschly - along the south shore of Wobl
to Elgr - down to oolipik - & back -
Pectorals - numerous (♂♂ only); redbocks
seen in low flock - no other pep. ^{EXPOSED} Area on
bluff is getting large - 100 yards wide
now. That arrived late afternoon -
Weather overcast - 5-10 mph north wind.

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Journal

9.

5 June

Barrow, Alaska

Went to Voth-Britton area in a.m. - snow is now disappearing rapidly from the tundra - most of Britton's Area is exposed - part of the ridge between Voth & Britton's. Area - Voth Area & the bluff along the west side of Voth creek. Weather was overcast, misty, 5 mph NW wind.

In afternoon, I went to Eisen bluff, north of Wohlshlog - ^{snow in run} ~~the area~~ has now melted - to a point equal to 15 July / last year (i.e. when we were watching the Curlew Sep. display). There is now a continuous strip of snow-free tundra between Brant Point & Wohlshlog Slough, varying in width from 50 to 150 yards. More Dunlin activity was noted today; jaegers were displaying & apparently settled. Specimens were prepared in the evening.

6 June

Barrow, Alaska

Maher & I went to Village Slough bluffs via Britton's & Voth's areas. These locales were the only ones in this direction which had large areas of snow-free tundra. Pectoral Sandpiper in all of these areas & were by far the most abundant sandpiper. Dunlin were seen scattered in Voth Area & Village fls - one nest of this species was found (4 eggs & inc. ♀).

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10.

6 June Barrow, Alaska

Pomarine Jaegers were scattered in these same areas + were showing signs of settling.

The snow is becoming mushy + soft + appears to be disappearing rapidly. The shift 1 wind yesterday + the west, continued today and by late morning, there was only a very light westerly breeze, the temperature being in the low to mid forties.

In afternoon, Made the assoc. - McLean, + I went to Beach Ridge - saw Semi-pal's display, PS, RB, + heard 1 BS over magnet station. At south end of beach ridge, 2 snow owls were seen - the ♂ was doing a dracula display. Weather remained good - moved + warm.

In evening - went to Voth area - found 1 more nest of C. alpinus - with 4 eggs + incubating ♀. - Several more seen as well as pectoral + semipalm. Snow is going fast in Voth-Britton Area - much half exposed, water running off in streams. Weather calm, overcast.

7 June Barrow, Alaska

Morning in lab working on specimens - in afternoon went to Olepile Staging - saw flock of ♀ PS, 1 Sifted Sandpiper, several displaying Dunlin (1 nest - scrape). Weather

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7 June Barrow, Alaska

-Mid fog - misty. Snow melt progressing rapidly, cobbles almost unrecognizable.

In evening - went to insect plots & took soil samples - found 3 Buff-breasted Sandpiper chasing - Voth bluffs are almost free of snow - except in ravines - birds clearly visible.

8 June Barrow, Alaska

Left at 0800 & went to Voth Area - Voth Slough (where PS nest was found & flock of ♀♀ PS, ♂♂ PS, RD + SP were also seen); ^{village} lagoon just barely crossable - then to Ikroavik where plot was checked. 1 ♂ PS on north plot - cobble was still $\frac{3}{4}$ covered with snow. South plot ridge - almost bare - but only 1 ♂ PS seen. Returned via Redbock ridge + Anouk Gole. 1st Rappenecker

Pectras were by far the most abundant sandpiper today. Semipalmated were everywhere - & flocks of ♀♀ were moving through. Snow is going fast & travel has become difficult. Litter is

Holmes, R.
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Journal

12.

8 June Barrow, Alaska

Morning was heavy fog + light - lashed wind.

In afternoon - went to ELSON - where snow is also melting rapidly - Area - 100 yds wide now - further back than where it was when we found Carlew Sep. last year. Snowy Owl numerous - shot 2 (♂-♀) along ELSON - 2 (♂) on beach ridge. Weather: high overcast - 5-10 mph - east wind.

In evening - to Voth - + Trepene III & D Area - heavy fog + mist prevented me from seeing much - but I did locate the 3 Buff-breasted + watched them for awhile. Several semi-pal were displaying + more flocks of ♀♀ PS were encountered.

9 June Barrow, Alaska

Beach Ridge + AACs - weather foggy, light NW wind. Beach Ridge - now free of snow from gulline to rhogmetus totus. Many are, are 100-150 yds wide. The ground north of the ridge is now partly exposed + the pads are muddy - i.e. - making travel difficult. 10 ♂ PS, 4 BS, 2 ♂, + 1 RB seen + 10 heard - ridge. Also Snowy owl + Bar jaegers

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13.

9 June Barrow, Alaska

In afternoon - went down west side of central marsh - which is now covered with 1-2' of water + mushy ice. Crossed east end of gasline ridge to fertilized plots. To this point, most areas were unmelting with snow or melt water. However beyond the fertilized plots - & particularly on the north shore of Colapik slough large expanses of open tundra were encountered. Pectorals (both ♂♂ + sterile (see ♀♀) were common, only occasional RB were seen. Lemmings sign + the presence of sev. jaegers and an owl indicate a poor lemming population.

The ^{expected} strip to the north shows the shaded Elsa is now 50 yards wide + the pectorals + few ducks were widely scattered. Relatively little digger activity was evidenced. No flocks of any shorebird species were seen.

W. cabin - overcast - calm - occasional sun. By evening, heavy fog settled in, so lab work was done at this time.

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10 June Barrow, Alaska

In morning went to insect plots + took samples. Stayed in Britton's area to check RO nest. It had been destroyed by a vehicle. This area is entirely free of snow now + this year area extends all the way to Uth - except some snow patches are present near Trophines III A + B.

At the insect plots - the ridge + polygons top are open, but the ponds are still snowed in. There is some standing water in Pond C - but in none of the others. The ponds at the lowland site are still snowed in.

Weather this morning was clear, sunny - with a cold 10 mph NW wind. - There was little bird display activity.

Afternoon. Stevens + Logsdon arrived on Uien + Maher + his crew departed on IRL. Afternoon spent getting mail from Maher + safe guarding our supplies. Insect samples were picked. In evening, I went to Eisa lagoon + Wobbs lagoon. Weather was clear, with a 5-10 mph wind from the east. Bird activity was light - little displaying. No pectoral flocks.

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11 June Barrow, Alaska

In morning, Stevens, Cogsdon, + I went to beam ridge - where bird activity was, over light - + then to gravel ridge - where BS, RB, + PS were actively displaying.

In afternoon, Pitelka who arrived in late morning, + I went to beach ridge - Saw ^{BS +} PS display - NO redbocks. Talked over research plans for summer - met Muller + talked over various topics.

In evening, I went to Voth slope - Voth area - + found first Pomarine Jaeger nest - with one egg. Henning sign was good along Voth bluff. - GASLING - Blooming Saxifraga oppositifolia.

Weather today was ^{part} clear - with fog settling in for short period / time. - Cold - 10-15 deg NE breeze.

12 June Barrow, Alaska

In a.m. Pitelka + I went to beach ridge where Pitelka censused his plot + I went onto the renouae plot on E18N lagoon. 3 more jaeger nests were seen - Sandpiper activity was low - very few Dunlin were seen - Pectorals were seen scarce, but several were noted along north shore of Wohlsehlag. In afternoon, I pushed insect samples, talked with Pitelka + Deleviche

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12 June Barrow, Alaska

for a while & then went to AACS area -
when all birds were scarce - except
leucidis - 1 white Y ♂♂ - display was
noted.

Weather today windy (10-20 mph) -
cold - and occasional sun shown
through.

Worked a lab in evening - refilled can
in ready to take Pitelke & me to the airport
from flight to Cape Thompson - left at ~
2300. - saw 3 Snowy Ours between Barrow &
Skull Cliff - weather overcast & foggy.

Arrived Thompson - 0200 - 6-13-63 - met
Harry Strom, camp chief, Bill Brown, & 2 U.S.
G.S. (Taillens & Gary Anderson). - went to Bed -

13 June Ogotonuk Creek, Cape Thompson, Alaska

- left camp at 0800 - took wheel up side
of Crowbell Mtn - to north of camp - reached
top of ridge at 0845. We then walked
north (to east) along high ridge - where
range is highest for 500-700' - above
Sea level. - covering 3-4 miles during
about 7-8 hours. Habitat here was
rocky - (shale) - ground covered by low
growing Arctostaphylos + Salix. Occasional
patches of grass were encountered - There
had good rabbit signs. Birds seen along

Holmes, R.
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17.

13 June

Ogotank Creek, Cape Thompson, Alaska

ridge top: Horned Lark, Water Pipit, Lepidochlamys
longspur, ^{snow Buntings} Baird Sandpiper (3 pair), Golden Plover
(4-6 pr), Knot (1 nest, with incubating bird),
(at least 3 others), Raven, ^{Redpoll} L-t. Jaeger, Rock Ptarmigan 10

After watching the knots for most of the day, we returned to camp - lots of off-roading, hockum + nappol for awhile. At

about 1730 - 1stella + I walked up along Ogotank Creek + along the adjoining hill-slopes. The creek bed contains small willows - up to 3' tall + scattered clumps of grass. The hill slopes are covered with Eriophorum tussocks.

Birds seen: Wilson's Snipe (incl 1 bird with nest - 4 eggs - on edge of Eriophorum tussock - in well-maintained area - 40' from stream bed - bird gave a strong distress call, which I did respond to by waving my whip out of the side + flapping - squeaky call note), Savannah Sparrow (1 nest with 6 eggs), White-cr. Sparrow, Redpoll, Long-tailed Jaeger (6+), Canada Goose, Glaucous-winged ^{Redpoll} Merganser (in stream mouth), Black Brant (large flocks along ocean), Semipalmated Sandpipers, No western Sandpipers (even though hill sides + creek bottom were thoroughly checked - weather was calm - snails could have been heard).

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13 June Ogotovuk Creek, Cape Thompson, Alaska

Golden Plovers, Raven, Tree Sparrow (1 heard),
Short-eared Owl (displaying, 500' or so - from
soft hoots - 5-8 x successively), Bar-tailed
Godwit (1 flying over ridge - 1 along creek), Golden Eagle.
^(1 Red-tailed Hawk & several Ptarmigan)
Weather clear, calm & warm -
beautiful day

14 June Ogotovuk Creek, Cape Thompson, Alaska → Barrow

Went back up the ridge for a
couple of hours - saw at least one knot.
Plane returned about 1200 - so we left
the best country & returned to camp.

Left Cape Thompson at 1400 - flew to
Pt. Hope - where we spent about
45 minutes - saw 2 Western Sandpiper; &
1 Semi-palm. Sandpiper. Weather clear &
warm - fog hanging off coast.

Left Pt. Hope at 1500 - flew over
Gull Lake - about 30 pairs on island -
birds sitting on eggs - picture taken for
better #1 - Arrived at Barrow at
1900. - evening spent in dinner &
sleeping.

15 June Barrow, Alaska

Left for Ikroavik at 0800. Spent all
day on census plot - returned to
lab at 1700. Weather mostly clear,
very light easterly breeze.

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Journal

19

15 June Barrow, Alaska

Pectorals were "super-abundant" on the census plot - dense - yet. Redbores were scarce. Bird activity (mostly DS + RP + LL) was good. The tundra is drying out fast & most of the snow is now gone. - In evening & dawn - fog & rain.

16 June Barrow, Alaska

In a.m. - went to census plot via blower & gas line ridge. - became fairly boggy, ^{water} so snow flowing out & in places. Took pond samples & did only one Vanner survey - since the machine broke down. Returned via same route, collecting 3 RB, + 3 OPB on the way.

In afternoon, I probed the above borer & went to north beach up - where SW. baridi & ogum were obtained. Weather today was sunny with a 5 mph westerly breeze.

17 June Barrow, Alaska

Left for Ikroavik at 0845 - arrived at 0930. Weather foggy & windy in early am - but by 1000 - it was clear & warm. I censused the plot - during the day. The pectorals were still dominant & there was little redbore activity. The bird

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17 June Barrow, Alaska

display slowed by mid afternoon & the
for and / south plot was not well
censused. Found 3 pectoral & 1 red bone
nest today - see sp. acc'ts.

In evening, the weather was still
clear & calm - S. I went to beach
edge & EIS & Lagoon - with the intention
of recording songs. But in general
the bird activity was very quiet &
little success was attained. A light
breeze came up at 2100 & recording was
stopped at that time. One pectoral ♂
was removed from the ~~study~~ removal
plot.

18 June Barrow, Alaska

Morning spent working on pond samples
and specimens in lab. In afternoon, I
went to insect ponds & took
sod samples. Found 2 RB nests
south of South salt lagoon - each with
4 eggs. Hunted in areas south & north
north of footprints - saw 2 RB only &
collected them. Pectorals were fairly
common.

Weather overcast - with occasional
sunny periods - light S-W wind breeze
north. Evening in lab on specimens.

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21.

19 June Barrow, Alaska

Worked in lab until 9:30 - then Ostell & I went to his census plot & observed at least 3 Western Sandpiper. However - there was little display activity - because of the days foggy windy weather. A few perches were seen - birds & redboots heard.

In afternoon, I hunted North beach ridge - collected sev. sandpipers - see catalog. Bird activity was low.

20 June Went to insect plots & took vacuum samples (before the machine broke down), pond sample & observation counts. Ad. Tipula were noted - 19 June - or over adult Pedicia. Many pupae are apparent in the samples. In afternoon, I returned & completed the vacuum-job. Then hunted through the area S. of North & collected several perches. Weather clear today but cold & windy (10-15 mph from E). In evening, I hunted on the BR-North meadow lake area & collected 3 Redboots.

21 June Left for Shroveton arrived. after breakfast & stayed in plot until 1600. Weather was overcast. with 10 mph - east wind - cold. Perch activity was still good, but hub was seen in. Barrow - several seen in.

Holmes, R.
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22.

22 June Barrow, Alaska

Weather sunny - with 10 mph east wind.
We took to beach ridge in morning & found
nest of Western Sandpiper. The
afternoon, soil samples were taken &
hunting was done in the Voth Area.
Evening in lab & happy hour.

23 June Barrow, Alaska

Soil samples picked & notes written
in lab during the morning. In
afternoon, I went to Elsa Loren
Herbicide Flough (after leave
from on Beach Ridge). Weather
clear light NE breeze. In evening - to
Voth Area. Bird activity was not
great.

Insects - Adults were very evident today -
midges were flying over the marsh area &
several Ad-7 flies were flying low - over
the ridge.

24 June Barrow, Alaska

Samples finished during morning & then
I walked out into the drum area
when there was very little display
activity. Several semi-pals & 2 or 3
beards.

In afternoon, I took insect pool
samples, vacuum samples, & observations.

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23.

24 June Barrow, Alaska

counts. Weather was overcast with a 5-10 mph north wind. Several ~~tipulids~~ adult tipulids & chironomids were seen; the # of adults are on the increase.

Bird activity was again low: no pectoral aural displays were heard & seen - all - 2 or 3 chases were observed. One flock of 45 ♂ pectorals near the cake eater road.

In evening, samples were processed & notes ^{were} written. Weather deteriorated - heavy fog & light winds.

25 June Left for Ikroavik after processing one specimen. Arrived there at 0900 - censused the south plot first - found 1 western sandpiper & 1 white-rump. Pectoral activity was low compared with four days ago. By mid afternoon, there was literally no display & little chasing. Returned to Barrow - arrived AMC at 1730. Weather overcast - 0-5 mph breeze (N.) in morning, 5-10 mph E at afternoon.

In evening specimens were processed & notes written. The fog settled in by 1900 & there was a cool & moist east wind.

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2x

26 June Barrow, Alaska

Weather in morning was sunny - with a light wind from the north-east. After dropping Pitel at his census plot, I hunted along Elson Lagoon & the north shore of Wobbe. with relatively little success. Several flocks of petrels along the lagoon & several localized ♂♂ 3XB seen - none heard in display.

In afternoon - went to insect plot where sod sample #5 was taken. & then I hunted through the area south of north & south of middle salt lagoon (E. Voth). Again, flocks of petrels were the most obvious birds; one pair of alpins - 1 nest / pinella near Voth area. Weather became overcast & windy. By evening the fog & mist had settled in - making weather conditions light unfavorable. Evening spent in processing specimens & working on abstract for Science paper.

27 June Barrow, Alaska

Processed sod samples in morning & then went to beach ridge & collected 2 PS + 3BS. Afternoon & evening in lab working - sod samples, specimens, & notes. Weather cold, windy, misty & generally nasty.

R. Holmes
1963

Journal

23.

28 June Barrow, Alaska

In morning went to Gasline ridge - meadows lake region, collecting. In afternoon, pond samples, etc. were taken at the insect plots. Weather overcast with a moderate (10-15 mph) east wind. Evening, lab + at Mr. Mullens'.

29 June Barrow, Alaska

Left for Ikroavik at 0830 after checking at Berlese's. All day was spent on the plot where standard activity was on the decline. Weather - partly overcast, some sunstreaks, light east wind. By evening the weather was settling in - overcast. Due fog + mist. Evening spent in returning & gas well to retrieve contents of wheel which broke + track + the specimens were processed.

30 June Barrow, Alaska

In morning, mud samples were picked + there a brief census of bird activity was made in the HACS area. In afternoon soil samples were taken & a hunting trap was made south of Voth area. There was little display activity noted. Weather - overcast + windy (east 10-15 mph). Rain began falling in mid afternoon + it continued into the evening. Pitelka + I went to Mullens' for dinner.

Holmes, R.
1963

Journal

1 July

Barrow, Alaska

Morning spent in lab writing field notes + processing
soil samples. Piterik departed on 12th
in early afternoon + I went to Gasline ridge +
vicinity. Weather overcast with a 5-10
mph ~~from~~ west wind. Some pectoral activity
was found south of Gasline ridge - where
two ground countships were noted. + several
small flocks of ♂♂ + ♀♀. Apparently, 2
heavy rain fell in the early morning hours +
the tundra was much wetter than in past
days.

In evening, more notes were written,
specimens processed + sample picked. Fox
settled in by 1900.

2 July

Barrow, Alaska

During the morning, I took Dr. Nils Fogad
a Danish biologist working on diatoms - to
Central marsh + along the north shore of
Wablschlag Slough + up along the east
side of beach ridge. The weather was
foul - overcast with a strong west wind -
there was little bird activity.

In afternoon, I took insect samples.
The weather remained the same.

In evening, samples + specimens
were processed.

Holmes, R.
1963

Journal

3 July Barrow, Alaska

left for Ikroavik at 0830 + stayed on the plot all day - The activity was mixed - some ♂ pectorals were still displaying but a number of ♂♂ have departed - altho no flock were in evidence. Some Redboob were seen + heard + 2 mm RD nest were located.

Weather was overcast in the early morning but cleared by 0100 + it was clear + warm, only a very light wind (from west - then shifting to north). In evening, it became overcast + windy (NE - 10 mph). I went to AAC for census work - but there was little activity. - On return, I helped Dr. V. Hessler get more gasoline for his truck.

4 July Barrow, Alaska

In morning, I wrote notes + caught up in lab work. Bohnsack came - with a dead ♂ found in drum area - also with report of a semi-palm brood - behind the animal house. Weather was overcast, then fog + light rain + mist - light S or N breeze from the north east.

Rain continued all afternoon. I went out + took soil samples. Returned

Holmes, R
1963

Journal

28.

4 July Barrow, Alaska

promised several birds before going to Mullens' for supper.

Snow started falling about 1630 & continued for the rest of the evening. By 2200 - there was about 2" on the ground & icicles hanging off the buildings. Steve Holland & I walked out into the drum area & checked on the birds - which were getting frantic. The buntings seemed most upset & both members of the pair were out scurrying around trying to find food - presumably for the young. A brood of semi-pals was found & there were being brooded by 1 adult. The adult semipals were feeding on the leaf mounds & also grass mayes - but were having a difficult time of it.

5 July Barrow, Alaska

Snow still covering the ground - but in camp & on the tundra. In the latter place - it covered about 80% of the ground (at 1130) & probably 70% at 1200 - the melt was four - six inches. The drifts varied - being 2-3" on the level - & over a foot in some of the drifts.

I censused Pitelka's plot during the morning & found the bird activity

Holmes, R.
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Journal

29

3 July Barrow, Alaska

to be very quiet - no displays / on
sight (except 1 adult & one by a longspur)
were noted. The only Pectorals seen
were incubated - about 87 - seen
44 pectorals were flushed from snow -
covered nests (45+ not under snow) - seen
one yol & white & out pair. One P
nest & 1 RY nest (with 3 eggs) - ~~now~~ had cold
eggs. One longspur nest incubated &
contained young - not found were
~~not~~ directed (fledged & predation? -
seen 1 both p & y).

It seems that birds which were
still on eggs are better off - but those
with small young - may have
problem getting small nest.

Sod sample processed in evening

6 July Barrow, Alaska

weather was clear & beautiful today -
a light wind from the W + SW came
up in the afternoon. During the morning,
I went to gasoline ridge & meadow
lakes - where several small flocks of
pectorals & 2 or 3 nodules - 1 collected.
In afternoon, pond, vacuum + other. says
went take in insect-vol area. Mosquito
were bothersome. Insects very abundant

Holmes, R.
1963

Journal

30.

7 July

Barrow, Alaska

Steve Logsdon, Dick Morlan (Anthropologist from George Washington Univ. - student of Campbell?) & I went to Shward & spent entire day in plot. Weather was clear - with a light S-E breeze. Mosquitoes were bothersome - many adult tipulids seen. Bird display activity had previously ceased - large for 2 ♂♂ petrels & Murrelets.

In evening - specimens were processed

8 July

Barrow, Alaska

Continued Frank P. (Pitts?) plot in beach ridge in morning - little bird activity - no display. Located a redoubt to fresh place net & checked others.

In afternoon - went to insect plot & took soil samples & checked nests near VTR area. Collected birds near AHS in evening, aft processing last 1 pond sample.

Weather was clear - but windy (10-15 mph - SE) - no mosq. were seen or felt - adult tipulids were numerous, however. The ice started to melt off shore in afternoon.

Holmes
1963

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31

9 July Barrow, Alaska

left for Inuarik at 0830 + spent all day on the census plot, locating putred nests. little display activity by any species; several flocks / putred nests. The day was overcast, a light breeze to S-NW was blowing from the SE. No mosquitoes today - but typical adults were very noticeable.

10 July Barrow, Alaska

I went to Gullin ruff - N. meadow lake in a.m. + collected. Located 2 broods of redbacks + scattered groups of putred nests, 1 flock of 4 semi-pal + 2-3 pairs of birds. No displays - exc. by redbacks. In afternoon, pond + vacuum samples were taken at the insect area.

Weather: partly overcast - occasional sun - 5-10 mph easterly wind. No mosquitoes, but surface insects were ext. abundant.

11 July Barrow, Alaska

Morning in lab writing notes + processing pond samples. In afternoon, I made a nest check - the beach ridge census plot. I've developed a ^{nasty} "cold" which is slowing my fieldwork. Weather today - light rain + mist during the day - relatively hard at times.

Holmes, R.
1963

Journal

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12 July Barrow, Alaska

Weather overcast with a strong (10-20 mph) north-n-e wind. In the morning, I went to beach ridge + the area south of north salt lagoon - where I found one jaeger nest with young + discovered that another had been destroyed + at least one adult shot. A flock of redbocks was encountered; 2 ♀♀ were collected. No ptarmigan were noted in this direction.

In the afternoon, I took soil samples at the insect plots + went thru Voth Area + the high country to the south. ~~Two~~⁽³⁾ ptarmigan nests were intact, one more had hatched - the 4 + chick were nearby. Two more broods were encountered in the afternoon - travel. One flying immature semipalm was collected - N + E took! are - both adults were present.

In the evening, specimens + some samples were processed. Weather remained nasty.

13 July Barrow, Alaska

Stevens + I left for Ikroavik at 0815 + arrived there at 0900 - All day was spent in census the plots - we returned to AB late in afternoon

Holmes, R.
1963

Journal

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13 July Barrow, Alaska

Weather today was variable - from sunny & almost warm to cold & windy with sleet in the air.

Only 2 pectoral nests were located - in general there was very little activity. - many of the nests, however, have not yet hatched.

Mullen & Child - returned from ~~Barrow~~ ^{Barter Island} in early evening.

14 July Barrow, Alaska

Weather partly sunny - but fog bank over the ocean which was constantly threatening to move in - but never did.

Completed beach ridge plot in morning & also checked several gull nests out from Elson - these are all nearly gone hatching.

In afternoon - went to point count work from above - vacuum samples. Tundra is still quite wet with all the rains we have had & ground level is high.

15 July Barrow, Alaska

Worked in the lab all morning, down specimens from Barter & writing notes. In afternoon, went to beach ridge - gasline ridge, meadow lakes, & beach ridge census plot. Very little bird activity. Weather was windy (10-20 mph) & went for most of the time.

Holmes, R.
1963

Journal

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16 July Barrow, Alaska

Weather today was nasty! In early morning, it began to rain + the water then froze on the grass + ground. Childs reported that at 0530 - the ground was nearly a solid sheet of ice - by 0800, some had started to melt but the ice still crumbled when walking on the tundra. During the morning an icy rain fell but by early afternoon, it warmed up, + the ice melted - but it kept raining all evening. Along with this - was a storm 10-15 mph northerly wind.

In the morning I went to broad ridge + vicinity - checked several nests on north end / broad ridge census plot + Ben came by + picked up Childs at Britton Manor. - The birds show no obvious effect / the extreme weather - except that the birds are brooding young + setting tightly - eggs. There may be some effect on adult insect behavior - but nothing could be detected today.

In the afternoon - I took Childs

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16 July Barrow, Alaska

back to his rookery - head up & then went to the meat plots when I took soil & vacuum samples. The laths were taken to document the effect on the adult meat was the wet cold weather - they were definitely fewer - & no typical adults were seen during the day's field work.

In the afternoon's work, very few birds were located - seen. & pictured 2 ♂ PS, 2 RB & saw RP. No brood - were seen of any species. They must be sitting tight.

17 July Barrow, Alaska

I went to Ikroavik & censused the plot. Several small groups of ♂ & ♀ pectorals were present as were flocks of ♂ & ♀ phalaropes. Most of the pectoral nests had not yet hatched. One flock of redpolls seen north of footprint lake. Long-tailed jaegers were abundant. Weather was overcast with a light NE wind (~5 mph). - midges were in evidence - as were adult typicals. In late afternoon, the wind increased but the day was still pleasant.

RTHolmes
1963

Journal

36.

18 July Barrow, Alaska

In the morning, I went to the beach ridge plot + censused. Most of the nests here have hatched - exc. for 1 pectoral, 1 redpoll + 1 jaeger plover. Several in attached pectorals - both ♂ + ♀ were present.

In afternoon, I went to insect plots + took pond - vacuum + obsv. Samples - the #5 of adult insects has decreased markedly in the last 4 days.

In evening specimens were processed + notes written. Weather today was overcast + misty in the morning - with fog overcast in afternoon. Wind 5-10 mph from NW.

19 July Barrow, Alaska

Most of gasline ridge + vicinity during the morning - saw several small flocks of ♂ PS, ♀ PS + ♂ + ♀ PI - very few redpolls or RB chick. Several broods of pectorals were noticed however. Weather was overcast - but the insects were out - including - few mosquitoes. By afternoon, it became clear + I went to Voth floyl + on toward Denoli And - again pectorals were the dominant bird seen. In the

Holmes
1963

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37.

19 July Barrow, Alaska

evening - I went to beach ridge & collected several Baird Sps. - some are now showing good sign / full plumage - in molt is proceeding. Weather remains clear & generally calm. The breeze shifted to east (from west) during the evenings & large flocks / flocks began moving toward the west.

20 July Barrow, Alaska

Childs, Stevens, & I went to Ikroavik via AACs & Gasline ridge - to check traplines. Several pecked flocks & broods seen along the way - On the plot - more peckers were observed & 3 new nests & 2 new broods were located. The redpoll activity was low.

Weather was foggy in early morning, clearing by 10-1030. & being clear for the remainder of the day. The eclipse of the sun could be seen through the fog between 0500 & 1000.

In the evening - specimens were processed & notes written [Sooty Terns were taken on the return trip from Ikroavik]. Several lemmings & good lemming sign was in evidence on the plot. Several point L.E. sheep rows were also seen.

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21 July Barrow, Alaska

Processed soil samples in the morning & then went to Wohlsehly Slough & herd ridge in afternoon - where a census was taken on the plot. Several flock of velvetbeaks & specters were noted.

Weather was overcast & windy (10-15 mph from east). The sun broke through occasionally.

22 July Barrow, Alaska

In morning, I hunted for jaegers ridge to mouth of Wohlsehly Slough & along EIS-1 on toward Cape Paul Slough. Several velvetbeaks & then chick & some flock of specters were noted.

In afternoon, insect sampling was done at the insect plots - samples of both birds & insects were processed in early evening. Then went to Child's dinner - hummingbirds!

Weather overcast & foggy - most of the day - the visibility was less than 1 mile.

23 July Barrow, Alaska

Went to Skroovil & watched the plot.

Some peetnos had hatched; some had not. In general there was little

RT. Holmes
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23 July Barrow, Alaska

activity. I took some pictures of adult redthroats near 10.4.

Weather was overcast, light easterly breeze - drizzle most of day. Some mosquitoes & smudge were out - bothersome around mid day. Weather generally warm today.

24 July Barrow, Alaska

After waiting until 0830 to get a vessel, I went out to gasoline ridge & the coast to the mouth of Oblique Slough - north to Wobleslag & the boat to camp via central marsh & north beach ridge. Only 1 flock of birds - 3RB - was seen - no pictures in groups - but occasional single ♀♀ & ♂♂.

Weather this a.m. was partly overcast - with some sun.

In afternoon - I went to take soil samples. Weather from 1200 - 1800 was steel fog - visibility limited to 100 yds or less. In the evening - it cleared & was sunny & windless.

25 July I went to Ikroavik in the morning & walked the plat, checking nesting, etc. Two new nests were found. Several

RTToburn

1963

Journal

90.

25 July Barrow, Alaska

Small groups / pairs of petrels & redbocks were noticed. In afternoon, I went to garden ridge & vicinity - saw 8 petrels but not many.

Weather was calm in morning & partly sunny - but wind (10-15 mph) in afternoon - with increasing cloudiness. By late evening it was heavy overcast & a light rain fell which went on sporadically through the night. About 10 pm I walked out through the drum area & collected 1 Imm SB & 1 Ad BS. A flock of 8 ♀ petrels was observed.

26 July Barrow, Alaska

Went to Bevil Ridge - north meadow lake - sat to collect gulls - east of the mound & up to Woblesley & return across central marsh. Several broad / petrels seen - in all stages from post-hatchling to almost flying. Two groups of flying redbock chicks & one adult in also found. In addition small flock of petrels, redbocks were present. All feeding was being done upland areas - with occasional traversa through marsh ground.

Holmes
1963

Journal

3/1

26 July Barrow, Alaska

Frog gull & 1 chick were seen south
of Wohlsehoy. Other gull
activity was not much in
evidence.

In afternoon, 2 food pods &
vacuum samples. In evening, stomachs
were analyzed.

Weather was calm but overcast &
raining in morning. Became
windy in afternoon. By late
evening it was beginning to sprinkle
again.

27 July Barrow, Alaska

Morning spent in lab writing notes &
processing specimens. Weather: light
rain & southerly breeze.

The nasty weather continued through the
day & night - with considerable amount
of rain falling. More lab work com-
plete during the afternoon & evening.

28 July Barrow, Alaska

Left at 0810 with 2 men from Bureau of Land
Management & went to Ikroavok - where
we walked the plot for 2 hours. Only
two pectoral nests remain - the
others have been checked & the birds
have for the most part departed.

Holmes
1963

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42.

28 July Barrow, Alaska

A few petrels & a few gulls & auks were seen on the plot & on the jugs down & back. Very little activity - some weather very foul - moderate heavy rain & 10-15 mph wind from the west.

In afternoon & evening lab work was done. The rain kept on through early evening - but subsided at that time. The wind blew all night & it dropped below freezing early next morning.

29 July Barrow, Alaska

Weather - snow covering ground in early morning but mostly gone by 0730. Cold NW wind & snowflakes all morning - decreasing in afternoon. Wind was from NW all day - some light rain in the evening.

I went to Inuvik Ave & took full load of samples - returned to lab at 1102 - Samples were processed then 1438 & then I drove to B.R. - Brant Pt. - & back to Central Base. Very few samples were seen in either the morning or afternoon travel. - 19 + 15 PS, 4 Ad RB, 2 Ad RB, + 1 Im BS. It appears that many of the birds - at least those breeds - have departed.

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27 July Barrow, Alaska

The absence of young at this time may indicate that not so many have survived or atleast that those born late in the season have not survived while those hatched in early July are able to fly now & could have moved off.

Predation has presumably been heavy. Dr. P. Johnson reported two new cases yesterday - one of a P.T. chasing a group of longspurs for a minute until the longspurs took refuge among the people working on the EIS - long plant ecology plot. The jaeger then flew overhead & took off in another direction. The other was a young shore-bird chick (sp?) being taken by the jaeger in the same vicinity.

Also - he reports that one golden plover young was lagging behind the rest of the brood, and the adult would keep running back & turned try to keep it moving. Finally the chick collapsed & would not move - appeared exhausted - maybe out of food - ??? -

This insect situation for you is critical - since not only are the chironomids inaccessible but now the heavy rains have drastically reduced the Hol.s.

Holmes
1963

Journal

44

30 July BARROW, ALASKA TO INUVIK, N.W.T. CANADA.

Little bird life seen because of high flying altitude + heavy cloud cover. Depart Barrow at 1600 & arrived Inuvik at 1930. (Then 2 hrs added for time change)

Inuvik is on the east side of the delta of the Mackenzie ~~del~~ river. This is spruce-moose country characterized by scattered groves of black spruce (Picea mariana) - up to 25'-30' in height. There is an understory of Betula glandulosa (2-3' in height + lower), Vaccinium (both salmonberry + blueberry), Ledum, Salix sp. + various forbs. The lichen Cladonia is very common throughout the country - & is easily seen from the air. Epilobium angustifolium + Senecio conjugatus were along the roads in bloom.

Birds seen - Redpoll, Tree + White-cr. Sparrow, Hairy Woodpecker, all in the spruce area - White Ravens, Glaucous Gulls (+ a dark type gull - which may have been Short-billed Gull - Larus caninus) were in the town + along the river channel.

31st July Inuvik to Sachs Harbor, N.W.T., Canada

Left Inuvik at ~ 1030 + arrived Sachs at 1400 - after a flight above the clouds. We carried the Eskimo leader of the village on the flight - F. Red Carpenter.

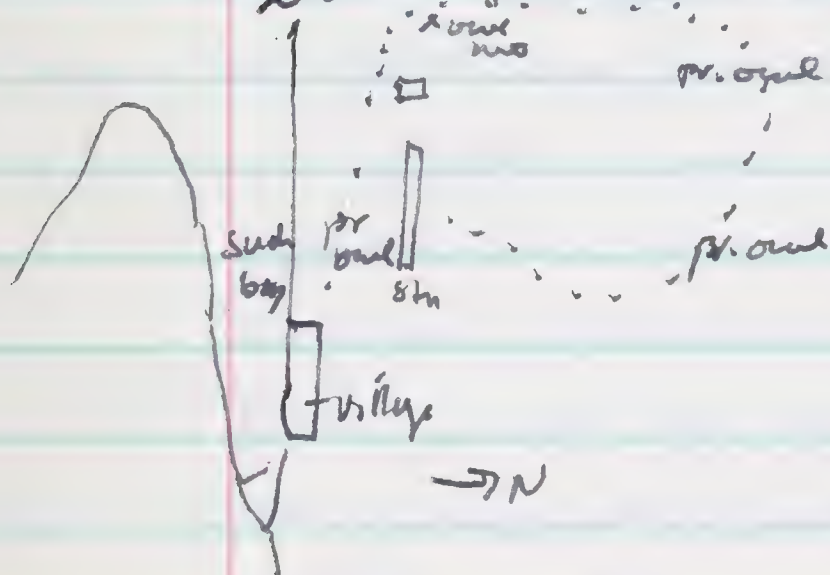
Holmes, R.
1963

Journal

45.

31 July Sachs Harbor Banks Island, NWT, Canada

Upon arrival we were met by Mr Eric
Ransom, from the Division of Transport, Canadian Government
who was heading a crew to build
the landing strip at Sachs. After dinner
at the construction camp, I walked several
miles through the tundra to the north &
west of the airstrip & then down to the village.



Two major tundra
habitats here - the upland
situation on the ridge
tops & slopes - which are
characterized by small
(6-12") polygons - mostly
covered with soil (or mud

today - due to much rain). The dominant vegetation
here is Dryas - which forms small tussocks.

Lemming sign was evident - such many old
burrows & runways - but no fresh activity. In
the area I would expect to find Dicrostonyx.

In the lowland area near the lake & the
mouth of the river are wet marsh lands
characterized by Eriophorum & Carex. The
habitat type is not too common - probably

comprising no more than 30% of the area
within 5 miles of Sachs Harbor. Lemming
sign here was good - but both fresh & old
evidence of activity. Four pairs of lemmings were

Holmes
1963

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31 July Sachs Harbor, Banks Island, NWT, Canada
seen - 1 with a nest & 1 1/2 grown chicks (1st
had been 4 according to the people at Sachs
& the mainland - pectorals & white-rumps (1) were
seen, as well as red phalaropes & Golden
Plovers. The Black-bellied Plover occurred but
not along the water edge. On the
coastal bluffs along the water edge - Raven
& Glaucous Gulls were relatively common.

Jugger was common - all three
species were seen - Long-tails were relatively
common. Parakeets - most abundant - but
there was no evidence of breeding & only
one parasitic was noted.

Birds seen at Sachs between 1945 - 1950.

Pomarine Jaeger - 15

Parasitic " - 1

Long-tailed " - 6

Pectoral Sdg - 6 Imm, 2 Ad ♀

White-rump Sdg - 1

Red Phalarope - 2 ♀, 10+ Imm

Leptland Longspoon - 30+

Sabine Gull - seen near large lakes - W. / auriferous - breeds

Arctic Tern - " " " " " " " "

Glaucous Gull - 10+

Rare - 1?

Sn. Owl - 8+

Golden Plover - 2 pr

Horned Lark - 1 Ad & 2 Im

Black-bellied Plover - 10+

Holmes
1963

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47.

1 August. Sachs Harbor → Bernard River, Banks Island, Canada

After spending the night at Sachs (became / low clouds, fog, rain & 10-15 mph westerly breeze - which has been the weather here since the 25th), we left this a.m. at 0800 & flew west to Cape Mellett & thence north along the coast (the country near the mouth of the Mellett River was very marshy & Eriophorum blossoms were widespread - i.e. this should be good fuscinus habitat). On the trip north - we were in fog most of the time but Glaucous Gulls, & Arctic Skuas & Sabine Gulls were frequently seen along the coastal sandbars & lagoons. Hairy / Snow Geese - 3 to 40 birds were seen on the ponds adjacent to the coast. Upon coming to the Bernard River where it joins with the Beaufort Sea near the NW corner of the island, we turned east & followed it for twenty miles ± until we reached the camp of Wm J. Maher & his four assistants - Steve Maclean & Rich Tenora. The camp is located on the north bank of the river, at a point near the junction of the Bernard & "our" river.

After settling, Doug Keiff, Dick & I walked north to the foothills (to mile) over the Eriophorum flower covered terraces & meadow lands - where a C. fuscinus had previously rested.

Holmes,
1963

Journal

48.

1 August Bernard River, Banks Island, Canada

Saw in this area several ~~immature~~ ^{immature} adult Calcarius lapponicus, Squatula squatarola, + Stercorarius longicaudus. On the return trip down from the ~~hill~~ hills + on the stream bed east of camp - 1 adult sandpiper was observed feeding among the gravel.

In the afternoon, Maclean + I checked an extensive Eriophorum + Carex marsh south of the Bernard River SSW of camp. The area is about 4 x 3 miles + consists of marshy ground + scattered lakes + ponds. The only birds seen were Arenaria interpres (1 Ad + 1 flying imm), Phalaropus fulicarius (2♂ + 3 flying immatures), Ad., Actitis subalaris + C. lapponicus. This area was inaccessible during most of June + early July + therefore was not visited during this time by the crew - however by its appearance, it should be good fuscicollis habitat.

In the evening, Maclean + I took a walk north of camp across the hills + several valleys where lakes + marshes were plentiful. Birds seen included ^{8-10 Ad} Squatula, Pluvialis (1 Ad + 1 2-3 day old chick), Calcarius, 2 or 3 Gavia arctica on two separate lakes, about 1/6 Branta nigricans, an adult Tryngites subruficollis with 2 flying immatures (all collected), 6-8 Stercorarius longicaudus, 10 Larus lagopus + 20-24 Larus mutus, 3 Phalaropus

Holmes,
1963

Journal

49.

1 August Bernard River, Banks Island, Canada

We returned to camp at 0100. Weather today has been variable - rain showers one minute, sunny, warm + mosquito on the next. In general the weather was 40-45°F, dropping to 30° during the night.

HABITAT: Upland - hill tops + slopes - quite barren with small muddy polygons + scattered Dryas tussocks. Occasionally small swales are found with ERIOPHORA being the most conspicuous plants. In this habitat - little is found - but occasional Black-bellied Plover + Horned Larks (Males). The lower hill sides start getting small Eriophora + Dryas tussock + then grade into the ERIOPHORA + the marshes. - here with scattered grass + sedge etc. - In lower slope - Buff-breasted Sandpiper, Sandpiper, Black-bellied Plover, Longspur, Horned Lark, Rock Ptarmigan - ^{DAVID'S} Golden Plover.

Low marshes - wet, ponds, lakes, - ERIOPHORA + Carex - wet small mounds with Dryas + numerous forbs (red flora - small variety) - White-rumped Sandpiper, Phalaropes, Longspur, Semi-palm. Sandpiper, King Eiders (WIM - although 3 broods / Kings were seen in the open areas today).

1 August Bernard River, Banks Island, ~~Alaska~~ Canada

The habitat separation is crude but in general it seems to hold. The country is rich in floral variety, but in general the vegetation is not lush, that is the plants are not tall nor dense, except in the very wet marshes.

2 August Bernard River + northern Banks Island, Canada

Weather overcast with rain showers. Jaap & I walked southeast for camp across "our" River through the marsh area in the wedge between our + Bernard Rivers - where we saw 2 broods (1 of 6, 1 of 3 young, each accompanied by an adult ♀), occasional Longspurs, Long-tailed Jaegers, glaucous gulls, Sabine gulls. On the south side of the Bernard a small (100 acres) marsh was located - which had several pools & lakes + then a sweeping hillside up to Muller's Knob - apparently this was the country Rave had covered in his walk here + presumably there are the ponds where he had collected the white-rumps. The habitat was the usual Carex.

Eriophorum Marsh. Black-bellied Plover + Golden Plover, 2 immature Red phalarope + Sabine gulls were also seen here.

On one of the drier slopes a group of 2 Ad + 3 Imm Scaupling was found. 1 Imm well.

Holmes
1963

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51.

2 Aug Bernard River + northern Barts Island, Canada

Species list for the Bernard River camp of WJH
as seen by RTH - 1-2 August.

Gavia arctica - 2 or

Branta nigricans - flock 116

Chen hyperborea - flock 130+

Somateria spectabilis - sex ♀ + 1

Lagopus lagopus, 1 ♂ + (2 Ad + 4 Y)

Lagopus mutus - 2 ♀, 2 ♂

Grus canadensis - 1

Pluvialis dominica - 2 Pr. + broods

Squatarola squatarola - common

Arenaria interpres - (1 Ad + 1 Y) + 1 I

Troglodytes subruficollis (1 Ad + 2 I) (2 Ad + 3 I)

Crocecinna alba - 1 Ad, 2 Ad + 3 I

Phalaropus fulicarius - common

Stercorarius parasiticus - 1

" longicaudus - 1 Ad

Larus hyperboreus - 2

Xema sabini - common

Eremophila alpestris - 1 Ad, 1 I

Calcarius lapponicus - common

- other species - had breed already departed. - see from
discussion of habitat groupings.

After returning from the walk across the
wide gravel bar and after lunch, we
departed on a three hour recon of northern
Barts Island (after digging out 40 out of wet sand!).

Holmes, R.
1963

Journal

52.

2 August Bernard River to northern Banks Island, Canada

For route / trip see map on next page. We departed
Maker's camp at 1500, flew north to Cape McClure - saw
following

1 musk-ox (pick)

1 " "

Flock of 4 ptarmigan

2 Arctic fox

2 Ptarmigan

1 group of 7 musk-ox (pick)

1 Arctic Hare (Lepus arcticus)

1 Snowy owl

3 Sandhill Cranes

} Small groups
of 2-8
Caribou
seen here
- also 1
wolf.

Coast from Cape McClure + Crozier to Castel Bay

Glaucous gulls in air & on cliffs

- no other cliff birds

Castel Bay - Thomson River to junction of Muskox River

1 swan - Olor columbianus - not

prev. recorded this far north in Banks!

glaucous gulls

Sabine Gulls

Sandhill Crane - 4

Snow Geese - 20

- did not see large killing ground when

was supposed to be at this junction

North to Mercy Bay - over fallen bluffs - along

coast to east, nearly to Parker Point -

only Glaucous Gulls seen.

Holmes, R.
1963

Journal

53.

2 August Bernard River to Northern Banks Island, Canada

Coast inland parallel to Prince of Wales Strait (could see Victoria Island) to large lakes where a few small groups of Snow Geese were noted & thence west to Thomas River & finally to camp. Along the Thomas River; more Musk oxen (1 group 14 ad + 2 y, 1 of 16 animals, + 1 of ~10) were seen. The muskoxen would run as the plane approached but ^{one} if we circled about & came near them again, & the group of 7 formed the classical ring with 5 facing outward & the corners & color - the center. - These are massive animals but yet they could run quite fast.

We returned to camp at 1800, had dinner & spent the evening writing notes, stacking.

3 August Bernard River to Barrow, Alaska

Left Maher's camp at 1045 with Dr & Mrs. There, Joop Koef & the 2 pilots. Murphy & Alef's ^{and} band. Flew directly towards Sachs Harbor (see map). The country to the east - i.e. headwaters of Bernard River looked marshy - many lakes & ponds could be seen. Also the delta waters of Big River & Starbuck River was of a marshy - Eriophorum - Carex nature - as judged from the air - ~~but~~ all these areas should be ^{good} ~~good~~ sandpiper

Holmes
1963

Journal

34

3 August Bernard River, Banks Is., Canada to Barrow, Alaska
habitat. Other marsh swales - some
being several square miles in area were
also seen along this route, but they ^{would be} ~~were~~
inaccessible by plane.

The country to the north of the Bernard
which was covered yesterday was the
same as described for the Makr camp
area - large hills with rather barren
sparsely vegetated tops & the wet
ERUPTUM - grassy marshes in the valleys.
It appeared that the northern area
may be 70-75% upland country.
with the remaining part in lower
slopes & marshes - which south of
Bernard River, the country was about
45-50% upland - the remainder being
marshy. The unknown area which
would still be well watered
is the headwaters country of the Bernard.

We arrived at Sachs Harbor, picked
up their mail & flew onto Inuvik. Here
we ate, checked the ships & left
for Barrow at 1800 (1600 Barrow time) &
after flying above the clouds arrived
at Barrow at 2000.

Holmes, R
1963

Journal

55,

4 Aug. Barrow, Alaska

Morning spent in lab catching up on field notes + other lab work. In afternoon, a full set of insect samples was taken. In travelling to + from Voth area - 1 ♀ PS + 2 non flying chicks, 1 ♀ PS, 1 Juv. RP, + 2 Ad RB, sev PT were noted - some 1 there were collected. Longspurs were flocking - several groups / 15-30 were seen.

Weather overcast, fog moving in + out - 5-10 mph wind from NE - in evening - with some snow flurries. Evening - lab work on birds + insect samples.

Weather - last 4 days has been generally foggy + raining.

5 Aug Barrow, Alaska

In morning, I drove south via meadow lake - gasoline rdg - east to fertilizer plots + north to Wohlsehly floyd - returning across Central marsh. No shorebirds were seen until the first plot area - 1 Thru 3 Ad RB, 1 Ad + 2 I. RB, 3 RB Ad, 1 I PS, 1 J + 1 ♀ PS, 1 ♀ PS + 3 I RP, sev Ad. GP. In So. C.M. - 1 ♀ PS + 1 J, 1 ♀ PS, 4 Ad. RB + So. of B.R. - 1 RB, + 3 I RP + 1 PS. - Some 1 there were collected. - see catalog.

In afternoon - to Voth area + points north - At gravel ponds in Britton's Area - 12 Ad + 2 I RB - 2 I PS, 3 Ad + 4 I RT, 1 I SP, HI WS. 19r. 12 Ad RB + 14

Holmes
1963

Journal

36.

5 Aug Barrow, Alaska

4 adults RB were noted in the polygamiae
are not 100%. Also - flock 125 RP -

In general bird activity was light -
rebock seemed to be moving &
were mostly in upland - polygam-
tundra - except the one big flock on
Grand ponds. There was a noticeable
absence of adult pecters. There were
were with no flying young. Also -
a noticeable absence of young fly-
pecters & rebocks - maybe some of
these have left already ??

Weather today was overcast
with a 5-10 mph west wind.

6 Aug. Barrow, Alaska

John Johnson, Steve Holland & I went to Horroville
today & walked the census plot. Only
3 ~~juv.~~ Imm PS & sev. Ad. RB (1 Ad + 3 J.) were
seen on the plot. 2 I RB were obs in
Footprint Lake. Imm RP were
relatively common on the plot & -
Footprint Lake. Jayars (Pom.) were
hunting & 3 Snowy Owls were seen
near the lake.

Weather was overcast - 5-15 mph wind
SE + SW. Light rain in afternoon - storm in evening
Afternoon & even in lake - robs & specimens.

Holmes, R.
1963

Journal

57

7 Aug Barrow, Alaska

Went to Beach ridge + central marsh in morning - sank weasel in deep mud / The marsh + worked back. Several adult & PS + Imm PS seen along the marsh edge. In afternoon + evening, I processed specimens + worked on writings.

Weather - overcast + rain Throughout the day. Light hours for south + west.

8 Aug Barrow, Alaska

Took Ed Cutler (marine biologist) + went to Oolypuk Slough - saw scattered velveted petrels + small gulls / Redpolls. In general little bird activity. Sidelined a 5-foot bearded seal - Erysmanus barbatus - 380206 north of oolypuk slough - in a marshy grove. Picture of it were taken + then in the afternoon, Charles + I returned + brought the animal back after shot it. The rest of the afternoon was spent in skinning + skeletonizing. In evening, specimens were processed.

Weather - sunny during most of day - cool.

9 Aug Barrow, Alaska

In morning - drove to beach ridge, north central marsh - to east of BR + back to magnet station. Shot 1 BR + PS - east of BR. Taped and

Holmes
1963

Journal

38

9 Aug Barrow, Alaska

flying in the same area. Phalaropes quite common in the lake & ponds.

In afternoon, took insect samples in Voth area & made several loops around this tundra - saw 1 flared / 8 Ad RB, & 3 Im PS. At Br Hn's area - Prob. ^{1/2} 12 Ad + 2 Im RB + 2 Im PS. Weather overcast - snow flurries - cold NW wind - not wind.

10 Aug Barrow, Alaska

In morning, specimens & insect samples were processed. In afternoon, I drove south along ~~east~~ west side of meadow lake (4 Ad RB), south of gulch area (2 I + 1 Ad RB, 2 Ad RB, 2 Ad RB, 3 Im PS) & then east toward Turt Plate across tundra country (flared 1 6 Ad RB), the north to south end of central marsh (3 separate Im PS + brood of spectacled Eiders) & then back to AKI. Pectorals were most noticeably missing? again RB Im are not very common.

Weather - partly sunny - partly overcast. 10-15 mph west wind.

11 Aug BARROW, ALASKA

Weather was overcast - with a cool light west wind (3-5 mph). Insect samples were processed in the morning & some thesis work was accomplished in the afternoon & evening.

Holmes
1963

Journal

59.

12 Aug Barrow, Alaska

Morning - lab doing paperwork. In afternoon Johnson & I went to Oolupik Slough via gasline ridge & fertilizer plots. Saw following birds - BR → 940 mi: 1 Ad RB, 1 PJ with GP chick, 1 Ad. RB. So Scaup: 2 Im PJ + 1 Ad, 1 RB, 1 RB, 2 PRB, 1 RB, 2 RB, 1 Im PS. So + west 1 Int plots: 4 PRB, 3 Ad RB, 1 Ad RB. E 1 Int. plot: 2 RB, 1 RB, 2 I PS, 3 B Dow., 1 S.O., 2 Ad RB (+ 1 Im?) + So CM - 1 PS-I + 1 Ad RB.

Redpolls were in small flocks & ~~very few~~⁷⁰ immatures were seen. Pectoral Gulls were absent & only a few immatures were seen, certainly less than would be expected after the nesting density two years.

The tundra is extremely wet & even the upland areas have standing water or at least are saturated with water. - So no matter where the birds feed - they are working in moist ground.

Weather today was partly clear in the morning but foggy in the afternoon. Very still evening - makes the day seem warm - even though the temp was in the 30's. Paul Hurd arrived today & we fueled in the evening.

Holmes, R.
1963

Journal

60.

13 Aug. BARROW, ALASKA

In morning, Hurd & I went out to beach & gasline ridges (IPS-E, 7 ± PS) & then went to the insect plots (few Imm GP - no pupae seen) - where we looked over the sampling program & sites & discussed insect matters. We returned via Brooks' Hut where 2 Imm RB & 2-3 Ads + RP were in the gravel area. Bird activity was exceedingly low.

In afternoon, specimens were processed & paper work completed. Weather today was overcast - light was dim - 35-40°F - Apparently freezing temp. Lost my keys.

14 Aug BARROW, ALASKA

Morning spent in lab working on data & talking with Hurd & Maher (who arrived back from Banks last night).

After lunch, Hurd & I went to insect plots, where I took soil & pond samples & where Hurd did some surface checks (where none were seen). He feels the area is rich - certainly more so than most ridges. - Several Longspurs, 1 GP, sev Glaucous Gulls, & Pom Jaeger were seen - no Skuas! Overcast - rain all day - west wind 5-15 mph - nasty.

1. The first part of the book is devoted to a general introduction to the subject.

The second part of the book is devoted to a detailed discussion of the various aspects of the subject. This part is divided into three main sections: the first section deals with the general principles of the subject, the second section deals with the specific aspects of the subject, and the third section deals with the practical applications of the subject.

The third part of the book is devoted to a summary of the main points discussed in the previous parts. This part is divided into two main sections: the first section deals with the general principles of the subject, and the second section deals with the specific aspects of the subject.

2. The second part of the book is devoted to a detailed discussion of the various aspects of the subject.

The third part of the book is devoted to a summary of the main points discussed in the previous parts. This part is divided into two main sections: the first section deals with the general principles of the subject, and the second section deals with the specific aspects of the subject.

Holmes, R
1963

Journal

61.

14 Aug Barrow, Alaska

In the evening, I talked with Dr. S. C. Kendeigh from Univ. of Illinois + one of his students Bill ^{Brooks} ~~Green~~ (B). They are here to collect snow buntings + redpolls for studies on energy budget (The above mentioned student is to work on redpolls - he has just completed a MA on shorebird migration through Illinois). He also has students working on energetics molt (in Passer domesticus) + of incubating (zebra finches).

15 Aug Barrow, Alaska

Morning - lab working on samples. In afternoon - Kendeigh, Green + I went to the area south of Wohlseh Slough - via bear ridge route + back by meadow lakes.

To Wohl. Sl. - no shorebirds seen - etc
R on fresh lake. - 1 P.T. & upland country
south of the slough - 3 IPS, 1 RB Ad, 6 RB Ad,
7 RB Ad, 1 RB, 3 IPS, 1 IPS, 1 nm-fly -
GP chick, 1 Ad GP + 4 flying chicks, sev Pom
Jaeger + 1 Parasitic Jaeger, 2 S.O. & so.
CM - 8 IPS, 6 Ad + 1 I RB, 1 I RB,
Near the meadow lakes - 3 RB, 7 IPS, 15
Lb. Dove - 1 ♀ + 5 imm. Spectacled Eider -
several Pom Jaegers + Golden Plover.

Holmes
1963

Journal

62

15 July Barrow, Alaska

Weather today was overcast - with light drizzle & scattered showers all through the day. Wind was light (4 ft from ground) - there was no wind. Temp must have been in high 40's - Chironomids & Mosquitoes were present in low numbers.

16 July Barrow, Alaska

Morning spent in lab processing insect samples. In afternoon, trip to south pasture - Near the Meadow Lake. 1 RB, 2 IGB, 3 Ad RB, 6 Ad RB + 1 Im, 3 \pm OP, 1 IPS. S. 1 *Junco hyemalis* - 8 IGB, 1 Im RB, 2 IPS, 1 PS-1, 2 Ad RB. Several birds were collected.

Weather overcast. - 10-15 mph east wind. - 30-40°F.

17 July Barrow, Alaska

Day spent in lab working on specimen & insect vacuum samples. Hard left at 8:30 this evening - during the day - we had several good conversations via radio here.

Weather: strong east wind & snowy in early morning - turning to rain during remainder of day. Wind kept up at 20-35 mph - & ground was a very nasty & disagreeable day.

Holmes, R.
1963

Journal

63.

18 Aug. Barrow, Alaska

Morning in lab working on notes, etc.
In afternoon - drove to gullery ridge
(1 flut 13 Ad RB - near N.M. L.) + then south of
the ridge (3 ^{Ad RB} ~~Ad RB~~). Several golden plover
immatures were seen. Also, several
Pomarine jaegers - Ad + imm; were also
noted. 1 imm. Spotted Sandpiper -
seen along fuel lolo. - as well as seen
in WS + SP.

Weather: Overcast - with 15-30 mph
west wind. + 29-31°F. - Weather may
be driving birds out.

19 Aug. Barrow, Alaska

Morning + early afternoon in lab working on
thesis + writing letters. Finally a weasel
was obtained in mid-afternoon + I took
an insect sample at the insect plots. No
shorebirds were seen on the tundra - while
only 2 Ad RB + 3 imm WS-SP? - were on
Britton's Gravel Pond.

Weather was overcast - cold (freezing
last night), temp remaining near 32°F
during most of the day. No wind - a
light sand breeze from SE.

20 Aug. Barrow, Alaska

In morning, I drove south past the meadow
lakes (flut + 8 Ad RB, 1 I GP, 1 I. RB). 1 imm avoc

Holmes, T.
1963

Journal

64.

20 Aug Barrow, Alaska

gasline rdg. (3 Ad. RB) - To Oohyah stage on
when nothing was seen + then went to town
gasline (inland from Oohyah) - where -
flock of 6 LB Row, 2 IRB, 1 PS-I, + 1 WSI
was seen.

Bird activity was very poor +
birds were hard to locate, especially
pectorals.

Weather overcast - very light snow.

21 Aug Barrow, Alaska

Stayed in lab all day - working on tail fe
science conference + finishing specimens
Weather was partly clear - but a
strong east wind was blowing
during most of day.

22 Aug Barrow, Alaska

Weather overcast all morning with
wind from east at 20-30 mph.
In afternoon, it started to rain +
kept it up until early evening - also
with strong east wind. By 2200 - the
wind was shifting to the south +
the sky was partly clear.

Worked in lab in a.m. + went to
field in afternoon + then to the fertility
plots in late evening.

In afternoon - went to beach ridge

Holmes, R.
1963

Journal

65.

22 Aug Barrow, Alaska

northern part of Central marsh (150+ L.b.
Dowitchers - 2 \pm PS) - north + east of BR -
in polygonal + pond country (6 Ad RB,
1 Ad RB) + Den return. Bird activity,
especially Pectoral - were very poor.

Checked Br. H. B. ground plot - 1 Ad. 12 RB + RP

In evening - scattered groups
Dowitchers + Pectoral - all immatures as
far as could be determined - were
seen in the marshy areas between
Central marsh + fertility plots.

23 Aug Barrow, Alaska

Strong gale blowing from west - wind gust
to 40 mph - all morning + early
afternoon. Overcast in a.m. - clear +
sunny - afternoon.

Chick left via Umi at 1230. Lot
work was done all morning. In the
afternoon - the wind was blowing lightly
from the west - + I went to beach
ridge - near the gasline + the across
the north end of Central marsh (100+ Dowitchers,
6-8 Imm Pectorals) across the N.E. near
No. end of census plot (2 Pm. J. + 1 Imm. J.).
At first look - flock of 8 Imm RB, 5 Imm. T. WS
+ 3-400 Imm Red Phalaropes. 3 RB + 1 WS
collected. In evening, specimens prepared +
paper work done.

1871

1871

The first part of the year was very dry and hot, with much rain in the latter part. The crops were generally good, but the wheat was much injured by the drought. The corn was also much injured, but the cotton was very good. The sugar cane was also very good, and the rice was very good. The fruit was also very good, and the vegetables were very good. The stock was also very good, and the people were very happy. The year was a very successful one for the country.

Holmes, T.
1963

Journal

66.

24 Aug Barrow, Alaska

Worked in lab all morning - School arrived at 1130. In the afternoon - we went out & took the LAST insect sample. Weather was clear, sunny - with a light (5 mph) - SW. wind. - very pleasant. In evening - samples were processed. Weather remained good - wind calmed.

25 Aug Barrow, Alaska

Morning spent in finishing samples. In afternoon, I went to Oohyul Flight & checked shorebirds - 1 ~~TP~~ Ad, 3 Im, 6 Ad KB, 2 I PS, 2 Ad KB + 1 I. PS. - Weather - cold & nasty. Overcast & rain all day - 20-30 mph NE wind. In late afternoon & evening - packing was done.

26 Aug Barrow, Alaska

Quiet try to relax in the morning & the packing & writing progress reports all day. Suggested to leave a RYD - in late afternoon. Weather - overcast - & heavy rain - with wind.

FINIS!

M · C L U R E
S T R A I T
R. T. Holmes
1-3 August 1963



Holmes, R.
1963

SOP
Insect Sampling

1 June Barrow, Alaska

SOD SAMPLE #1 - taken from polygonal ridge top -
30' south of Pond A - new last year's
upland sampling. - 5. $\frac{1}{16}$ m² plots
taken - each about 2' apart - all in
similar habitat. mostly Rea - covered
sod, with some Luzula + Arctostaphylos.

10 June - Same area used + same samples
taken. SOD #2

18 June " " SOD #3

22 June " " #4

26 June " " #5

30 June " " #6

4 July " " #7

8 July " " #8

RTB
1963

Iktroavik

2 June Barrow, Alaska

North Plot - still snow covered - only a few polygon top becoming visible

South plot - central ridge partially bare, but not continuous, so (south plot, 20% exposed) - 1 ♂ PS at 20.02.

8 June

North Plot - 30-40% bare - but snow still partly. 1 ♂ PS at 8.4. No other shrews

South Plot - half exposed - mostly the upland - lowland are still covered. No shrews seen.

Apene
1963

Belese - Vauu
Sangha

16 June Upland - taken 6-17-?

20 June B63-1 - upland
2 Trough
3 Slope
4 Flatland

24 June B63-5 - U
6 T
7 S
8 - (Flatland not take duck brush /
mud-in)

28 June B63-9 - Top
10 - Trough
11 Slope
12 Flatland

2 July
13 Top
14 Trough
15 Slope
16 Flatland

6 July
17 Top
18 Trough
19 Slope
20 Flatland
Sangha sat - 1 day &
then sat for 3
hours.

RTH
1963

Barluse

10 July Barrow, Alaska

21 TOP
22 TROUGH
23 Slope
24 Flatland

14 July

25 TOP
26 TROUGH
27 SLOPE
28 FLAT

16 July

29 TOP
30 ~~Slope~~ TR
31 Slope

- wet, cold, icy day -

small org. not saved

32 ~~Top~~ Flat

18 July

33 TOP
34 TROUGH
35 Slope
36 Flat

22 July

37 TOP
38 TROUGH
39 Slope
40 Flat

26 July

41 TOP
42 TROUGH
43 Slope
44 Flat

29 July

45 - TOP + 2 Sm. Ad
46 - TROUGH
47 Slope
48 Flat

RTH
1963

~~SP~~

BERLESE

4 Aug Barrow, Alaska

49 - TOP

50 TROUGH

51 Slope

52 Flat

9 Aug

53

T

- Small org. not saved

54

Tr

55

Sl

56

F



RTH
1963

Pond #1

16 June

P-A-3.0- pit-2" - 25' in dia

P-B- 5.8- 30'-dia-pit 2" - no ice

P-C- 6.8- 60' x 20' - pit 1 1/2" - no ice

P-D- 8.0- counter to North pond -
(interior in still ice, common)
60 x 40 - nice

P-E 8.5 (good hole made for trap?)
- 95% in common

P-F- 2.0 - 50' x 40' - 100-110

A- 4' to SE - 200' x 40' - 100-110

P-G- 3.0 - 40' x 40' - 5" pit - no ice

P-H- 6.0 - 50' x 40' - 2" pit - no ice

Holmes
1963

POND SAMPLER # 2

20 June Barrow, Alaska

P-A-3.0 - ph=4" - 25x15 ← C

P-B-5.5 ph=3" 15x15

P-C-6.5 ph=3" 40x20

P-D-7.5 ph=3" 30x30

P-E 7.5" ph=3" 25x15'
- 1/4 shrouded (mud)

P-F - 2.5 ph=3"

P-G 5.5 3"

RTH
1963

Pond Samples - # 3

24 June Barrow, Alaska

P-A - 2.5 , 8.8° - 5"

P-B 5.0 - 9.2° - 4"

P-C 6.1 9.0° - 4"

P-D - 9.6° - 6.5 - 4"

P-E - 7.0 - 10.0° - 5"

F - 6.5 9.2° - 4"

T - 3.5 9.6 - 5"

RTT
1963

PS
#4

28 June Barrow

PA - 2.5 - 10x15' - pbr = 6" T = 9.0°C

PB - 4.8 - 12x12' - 5" 7.2°C

PC 6.0 30x15' - 5" 7.4

PD 6.5 25x12' - 4' 6.8

E 6.8 15x8 - 3" 7.0

F - 4.5 35x20' - 5" 9.0

V - 5.5 40x20 - 5" 7.4

RTT
1963

sample
Panel # 5

2 July Burrow

	Temp	Level	PR
PA	9.0	2.5	5"
PB	8.8	5.0	"
PC	8.8	6.0	5"
PD	9.0	6.5	4"
PE	8.8	^	
PF	9.0	4.5	4"
PJ	9.0	5.5	4"

Holmes, R.
1963

Pond Sample #6

6 July Barrow, Alaska

	level	T	ps
P-A	3.0	15.6	6 ⁴
B	6.0	15.4	6 ¹
C	6.5	15.6	"
D	6.8	17.8	"
E	7.5	16.8	" 7
F	5.0	18.2	
J	5.8	15.8	

J

5.6

13.6



RT#
1963

Pond # 7

10 July

Level

Length

pk.

A

3.0

12.0

7.0

B

5.5

13.0

6.0

C

6.2

12.2

7.5

D

6.5

11.2

7.5

E

7.0

11.8

5.0

F

4.5

11.0

6.0

J

5.5

13.0

7.0

RTH

Pond Sample #8

7/14/63

	Depth	Temp	pH
A	2.8	14.8	7.2
B	5.4	15.2	"
C	6.0	15.2	
D	6.5	15.5	
E	6.8	14.4	
F	4.5	14.2	
J	5.5	13.0	

Holmes, R
1963

Pond Sample #18

22 July Barrow, Alaska

	level	temp
PA	2.8	9.2
B	5.4	8.0
C	6.1	6.0
D	6.5	7.2
E	6.9	8.6
F	4.5	10.0
J	5.3	9.4

RTW
1963

Pond Sample # 11

26 July Barrow, Alaska

	Level	Temp
PA	2.8	
B	5.3	
C	6.2	
D	6.5	
E	6.9	
F	4.5	11.4
J	5.4	11.0

RTH
1963

P Sample # 12

29 July

	level	length
A	3.3	4.0'
B	5.2	4.6'
C	6.6	4.0'
D	6.9	4.0
E	7.2	4.6
F	4.8	5.0
J	5.7	5.6

RTW
1963

Pond - #13

4 Aug Barrow, Alaska

PA - 3.4 4.6°

PB 5.7 8.0°

PC 6.5 8.6

P-D 6.7 6.6°

P-E ~~7.1~~ 4.2°

P-F 4.8 8.2

P-J 5.8 7.0

RTH
1963

Pond Sample - # 14

9 Aug

	Level	Temp
PA	3.5	5.6
PB	- strike zone	5.4
P.C	6.5	5.2
P.D	4.8	
P.E	7.1	
P.F	4.8	
P.I	5.8	

PS - 15'

14 Aug

1		
P-A	3.5	5.8
P-B	-	5.0
P-C	6.5	5.0
P-D	6.7	5.6
P-E	7.0	5.2
P-F	4.6	5.8
P-I	6.1	5.2

Holmes, R.
1963

Pond Sample 16

19 Aug Barrow, Alaska

	Wind	Temp
PA	3.5	3.0
B	—	5.0
C	7.5	3.6
D	6.7	3.6
E	7.0	3.0
F	4.8	4.0
J	6.0	4.6

RT#
1963

PS-17

2/

	<u>T</u>	<u>Level</u>
PA	13.2°	3.3
PB	11.8	
PC	12.2	6.5
PD	8.6	6.7
PE	13.0	7.0
PF		4.8
PG		6.0

25 Aug

AACS - 1 PS - T

So far - 1 RB - Ad

" " - 3 T, 6 RB - RB

So far - 2 PS

2 RB-

RTH
1963

OP - /

20 June Barrow, Alaska

OP A - 0940-0950 - 2 sawflies - Ad.
OP A - - 1 "
A'' - 1 "

OP B - 1005-1015 - 1 spider
B' - 0
B'' - 2 Ad Staph. beetles

OP C - 1025-1035 - 0
C' - 1 Ad. sawfly
C' - 1 St. lar

OP D - 1045-1055 - 0
D' - 1 spider
D'' - 0

RTH
1963

DP plot - 2

24 June Barrow, Alaska

ORH - 1440 - 1450 - 1 Ad midge

OPA' - 1 " "

A#

2 Ad ♀ Tipula

A''

4 sm Ad dytisc

1 Ad. Gaufler

ORB 1500 - 1510 - 0

D'

1 spid

D''

0

ORC - 1520 - 1530 - 0

C'

1 Lg Ad. midge

C'' - 0

OP.D. 1540 - 1550 - 1 spid

1 Ad Staph.

D.

0

D''

0

RTA
1963

OP - 3

28 June Banner, Ariz

OPA - 1440-50. - 1 Ad ♂ Term.

2 sm. diges

A' -

○

A''

2 lg Ad. Chiron

1 Sam. fly a d

OP-B - 1500-1510. -

B'

○

B''

1 Ad. Staph beetle

OP-C - 1520-30. - 1 spider

1 Ad Staph

C'

-

○

C''

-

○

OP-D - 1545-50 -

② 1 Myab Ad

D'

○

D''

○

Holmes
1960

OP-4

2 July Banana

OP A 1510-20. - 2 Antho. Ad.

2 sm. ? dep Ad

1 spider

A' -

1 sm ?

A''

2 sm !

1 spider

OP B 1530-40 - 1 ♀ TIPULA

2 sm dep Ad

B' -

1 sawfly

D''

- 2 sm ?

OP C 1530-1600 - 3 sm ?

1 spider

C'

- 2 sm ? Ad

C''

- 1 Ad & Pedicel

1 sm !

OP-D 1610-1620 -

D'

D''



Holmes.

1963

OP-5

6 July Barrow, Alaska

OPA-1425-35 - 4 Ad Anko

5 " Mycto

3 sm ? Ad

3 mosquitoes

OPA' 2 sawfly Ad, 1 midge, 1 humb-
bee, 1 Ad hemiptera, 1 ♂ Tipula 16 mosq

A" - 8+ mosq - 2 Anko - 2 midge Ad.
2 sm ? Ad

OPB-1445-1455. 2 Ad midge - 2 Ad Pedic -
15+ Mosq.

B' - 1 ♂, 1 ♀ Tipula, 3 Ad Pedica, 4 An
midges, 2 Ad. Heteromyia, 2 sm? Ad.

12+ mosq.

B" - 1 ♂ Tipula, 2 Ad. mosq - 1 Anko, 1 sm? Mosq?
12+ mosq.

OPC-1505-1515 - 8 Ad Pedica (207.4) - 2 Mycto
Ad, 1 midge Ad, 1 Steg. Ad. 30+ mosq

C' - 1 Ad ♂ Ped, 1 Ad. midge, 15+ mosq. 3 sm? Ad
Anko. - 2 myctophy. Ad

C" - 5 Ad. Pedica ♂♂, 1 Ad Anko, 1 Ad. mosq
1 Ad Myct. 3 sm ? Ad - 30+ mosq

OPD - 1525-1535 - 1 spider, 3 myct. Ad - 1 mosq
- 30+ mosq

D' - 1 Ad ♂ Ped, 3 Ad midge, 3 Ad Mycto, 3? sm? - 15 mosq

D" - 1 Ad sawfly, 1 Ad brown myctophy (Anko?)

1 mosq - 15 mosq



RH
1965

OP - 6

18 July

OPA - 1440-50 - 2 ♂ Ad Tipula, 1 ♀ Ad Tip, 2 midge Ad
2 sm? Ad - 2 Anis Ad.

A' - 2 ♂, 1 ♀ Tipula, 2 Anis, 1 midge, 1 sawfly
4 sm? ad fly.

A'' - 1 ♂, 1 ♀ Tipula, 3 Anis, 1 m. fly, 6 sm?
3 sawfly

OPB - 1500-1510 - 14 ♂ Pedicia - 3 mycet. - 1 Anis
4? sm Ad

B' - 13 ♂ Pedicia, 3? Ad - 1 Anis - 1 mag

B'' - 10 ♂ Pedicia - 1 sawfly, 1 ♀ Tipula - 3? Ad

OPC - 1520-30 - 5 ♂, 1 ♀ Pedicia, 6? small Ad

C' - 5 ♂ Pedicia, 1 ♀ Tipula, 3 sawfly
- 2 mycet-type - 5? Ad

C'' - 6 ♂ Pedicia, 1 ♀ Tip, 2 sawfly -
4? Ad.

OPD - 1540-50 - 4 ♂, 1 ♀ Pedicia, 1 ♀ Tipula
- 3 mycet - 1 Anis - 6? Ad.

D' - 6 ♂ Ped. - 3 mycet - 8? Ad

D'' - 5 ♂ Ped. - 1 Ad Prorhinotermes.

3 Ad mag. 3 Ad sawfly, 4? M.

RTH
1967

08-10

26 July

OP-A-	0
A'	0
A''	0

OPB	0
B'	0
B''	0

OPC	0
C'	0
C''	0

OP-D	0
D'	0
D''	0

Cold wind, drizzle rain last night + sprinkle
all day today.



RSK
1963
12 June



~~1005~~
BS

$\Delta 5$

$\Delta 5$

$\Delta 5$

$\Delta 5$

$\Delta 205.0$

DRUM

DRUM

20 June

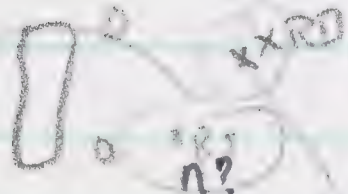
2000 - 2200



Holmes, R.
1963

APES

30 June



UPSON
HILL

2P50

X12
BS

BS
collected

501

BS

2P50


BS

274
1963

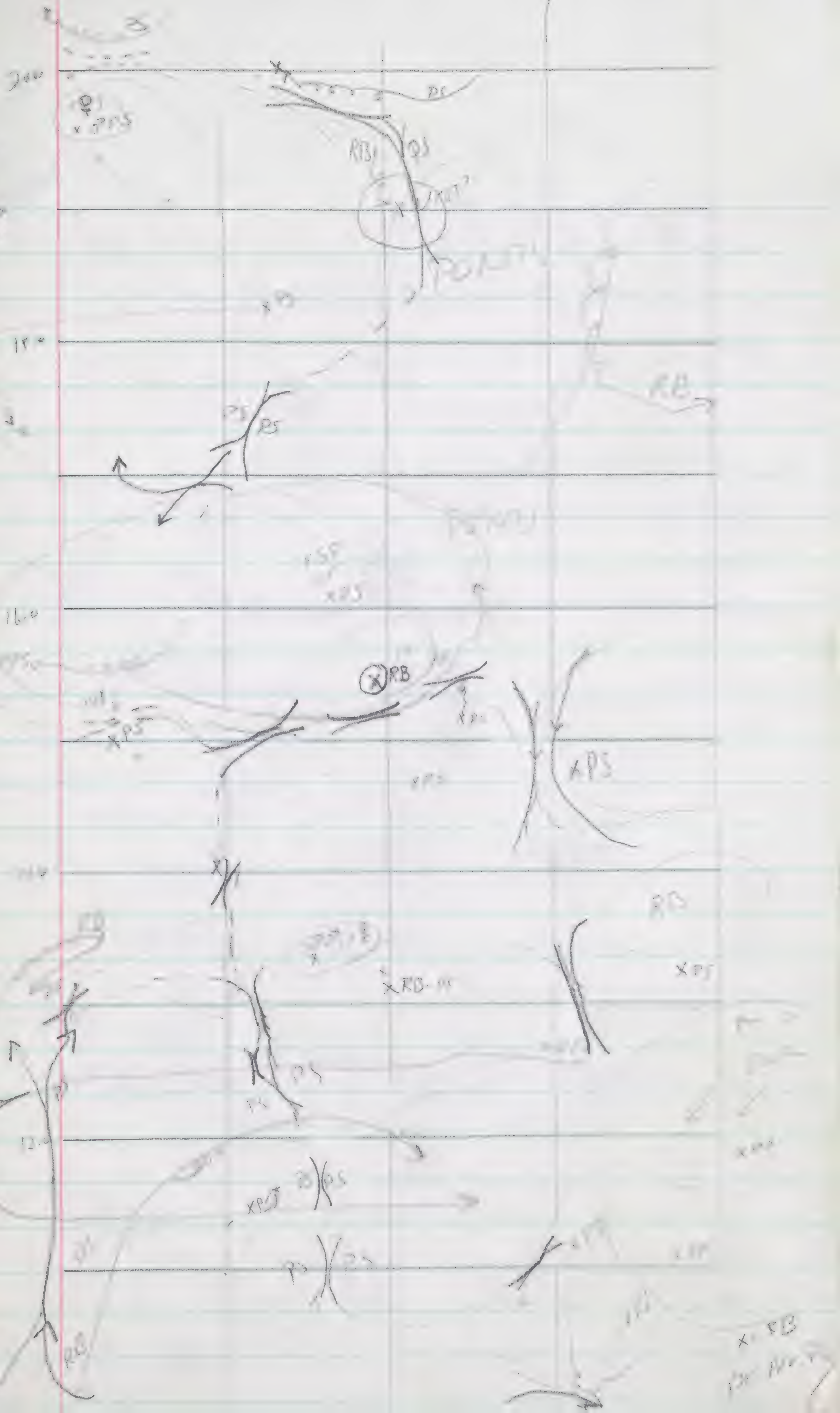
15 June

29-1

8/10/93
Sundown
28 m
- 100 ft
faintly



15 June



63
15 June

1500 - excitation time 31 in 1 min
ladder at 3 different points

PS - clear - 200 - 10 - green - green
call - no 2 all off - off 9 -
sudden flight - last - 200 - in
lighter - 4 - 100 - 100 - clear
back again

RB 1500 - 1000

down
then - then - green
full

2000 - a 

PS - 9000 - 1000 - 1000 - 1000 - 1000
10000

PS - 10000 - 1000 - 1000 - 1000 - 1000
10000

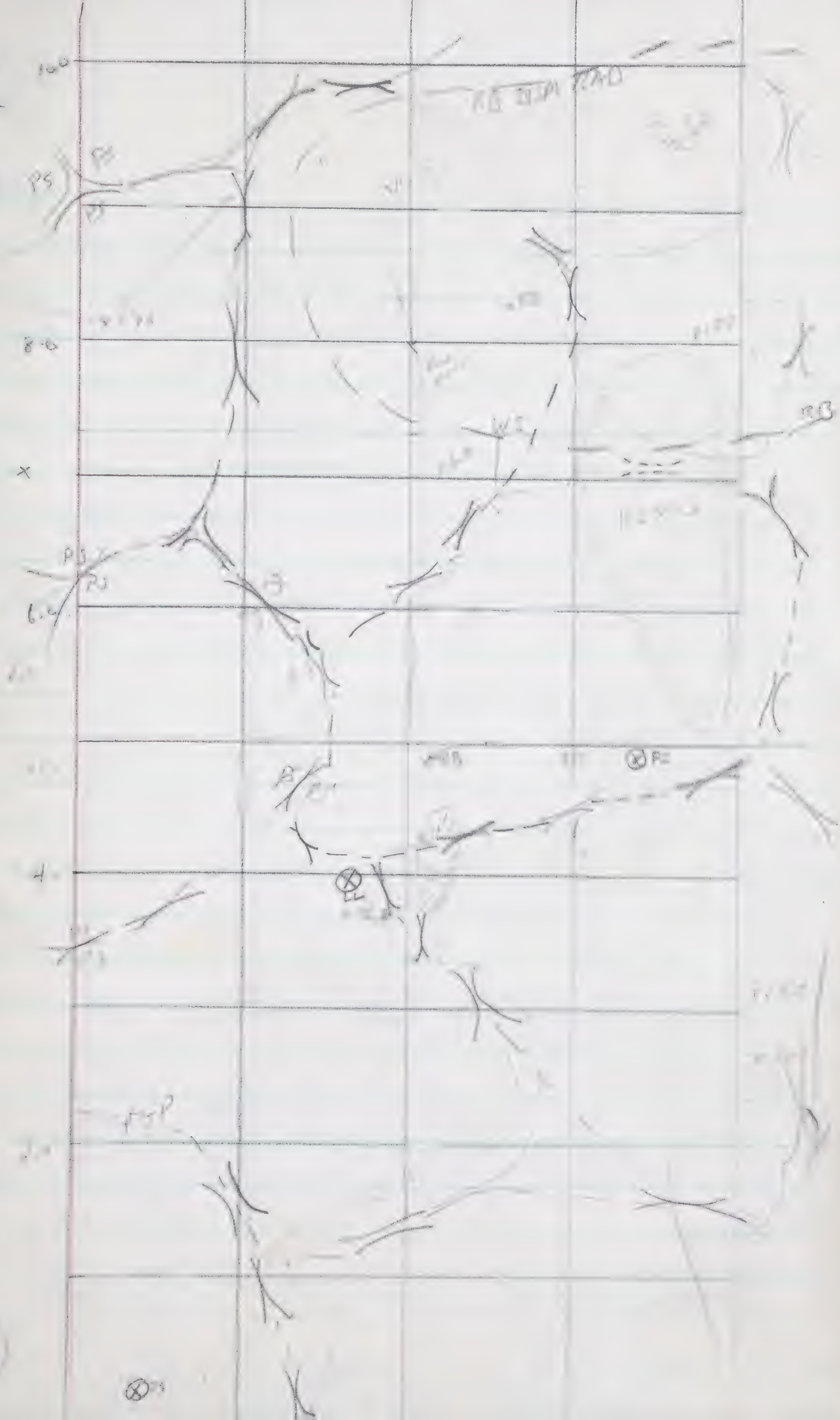
1000 - 10000 - 1000 - 1000 - 1000 - 1000
10000 - 1000 - 1000 - 1000 - 1000 - 1000
10000

RTN

1963

17 June

000-1400



RT14
1963

17 June

768

1810

1610

1710

1210

Part 1

at
wind

⊗ RB

1200

RTA
1963

17 June

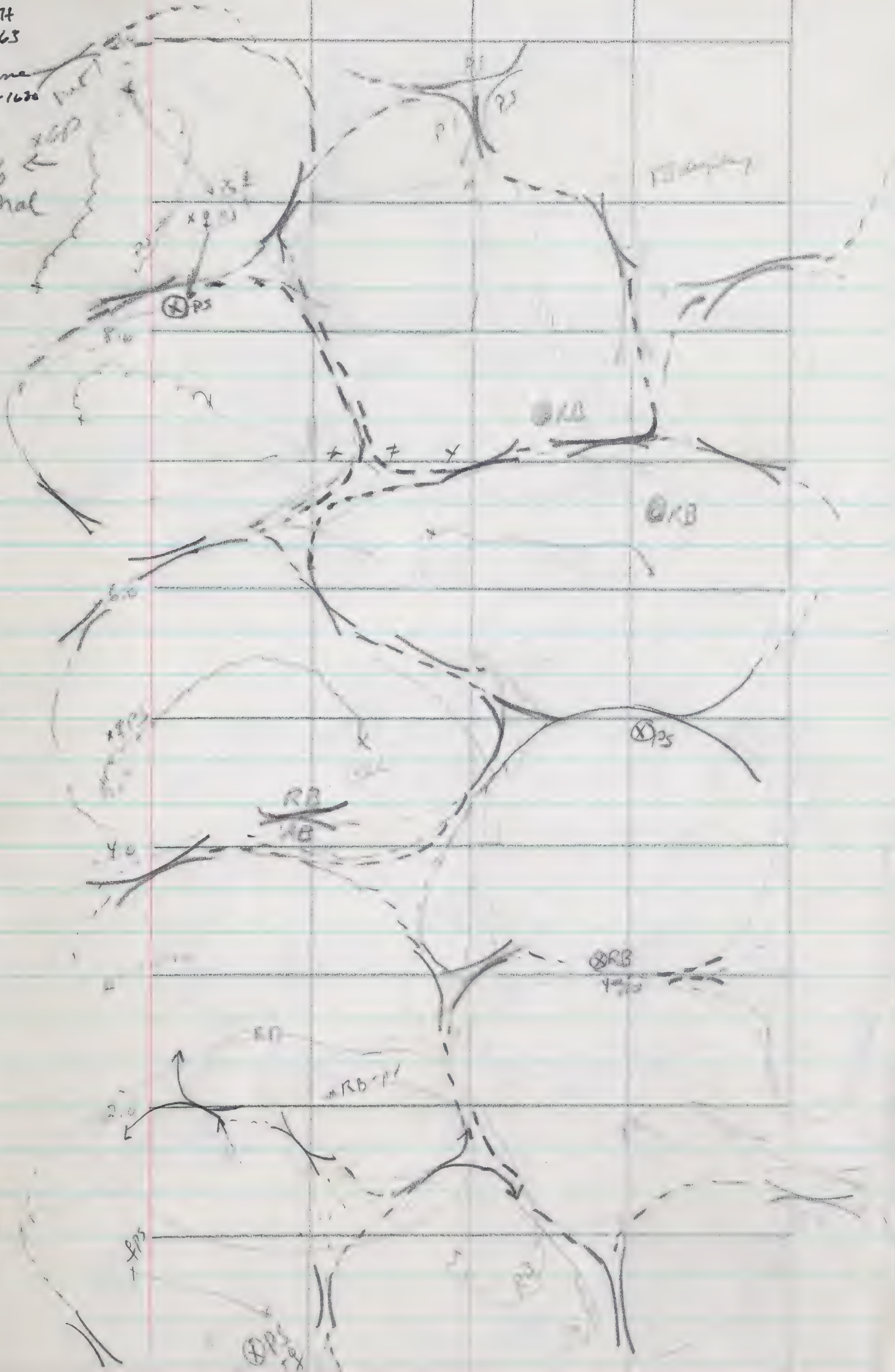


2 Kettling light -
- not intensified
worked

1963

21 June
0900-1630

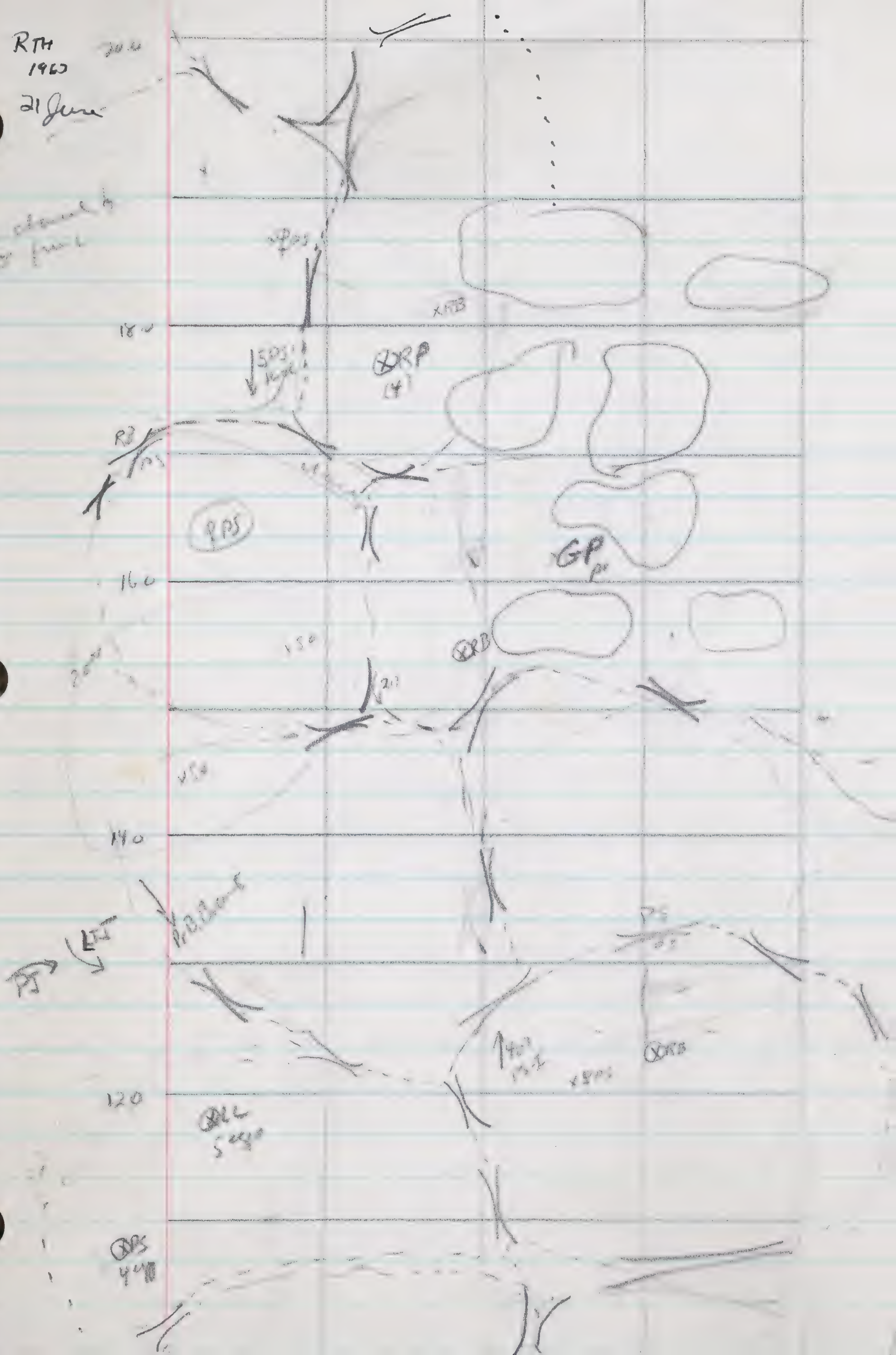
No. 1



RTH
1963

21 June

Pl. cloud to
3.55 pm



RTM
1963

21 June

25.0

22.0

21.0

20.0



10.5

X

[illegible]

X

6.5

4. 6

2.0

24

54

X

X

1990

65

10/15



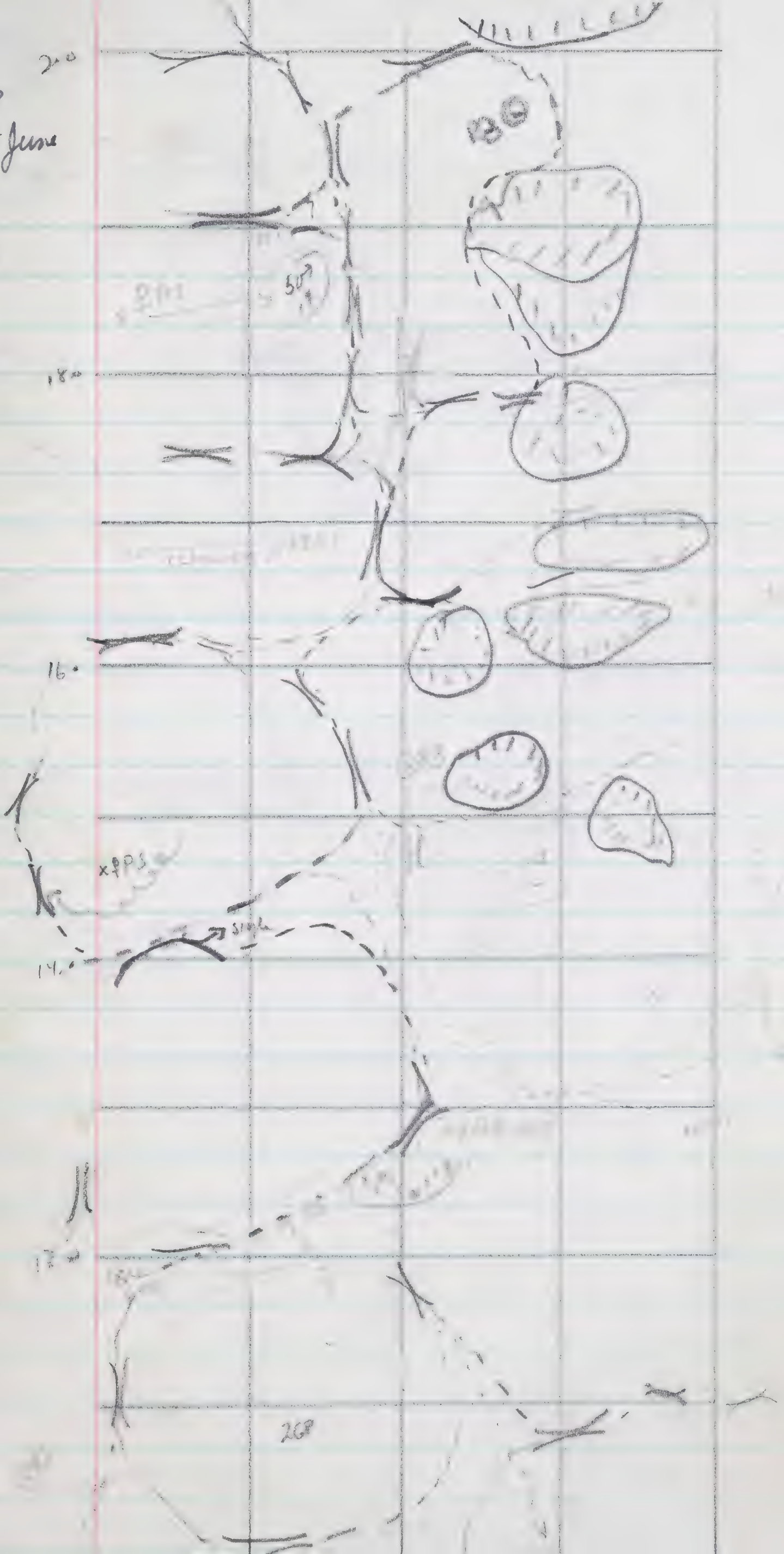
120

14-1000

RTH
1967

25 June

1241



RTH-1963

25 June

250

10793

8000

4995

8-8 DS

OX12

xws xwr

collected in late afternoon

22.0

NO BS

seen
- scarce at this end

8000

210

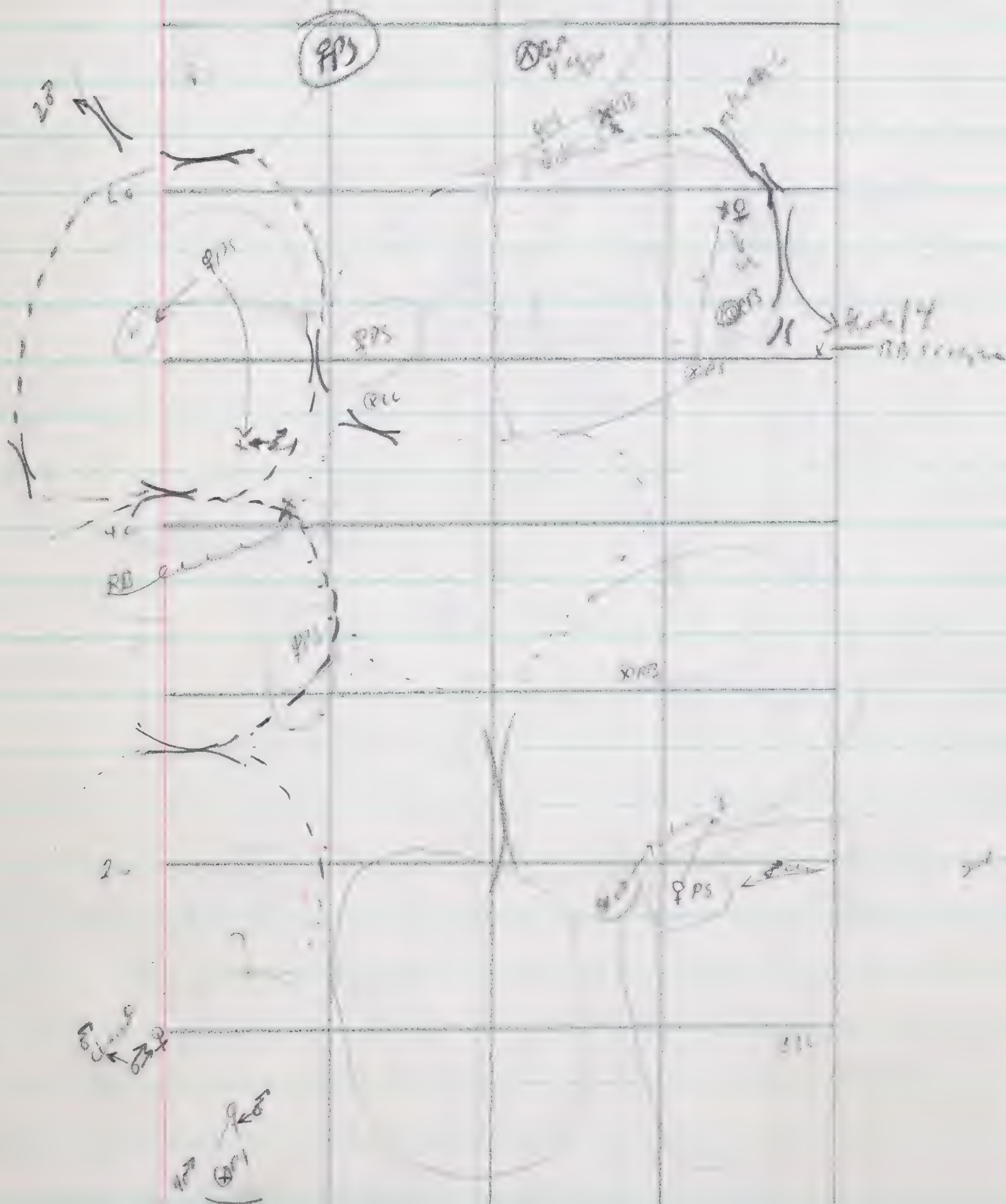
190

RT4

1963

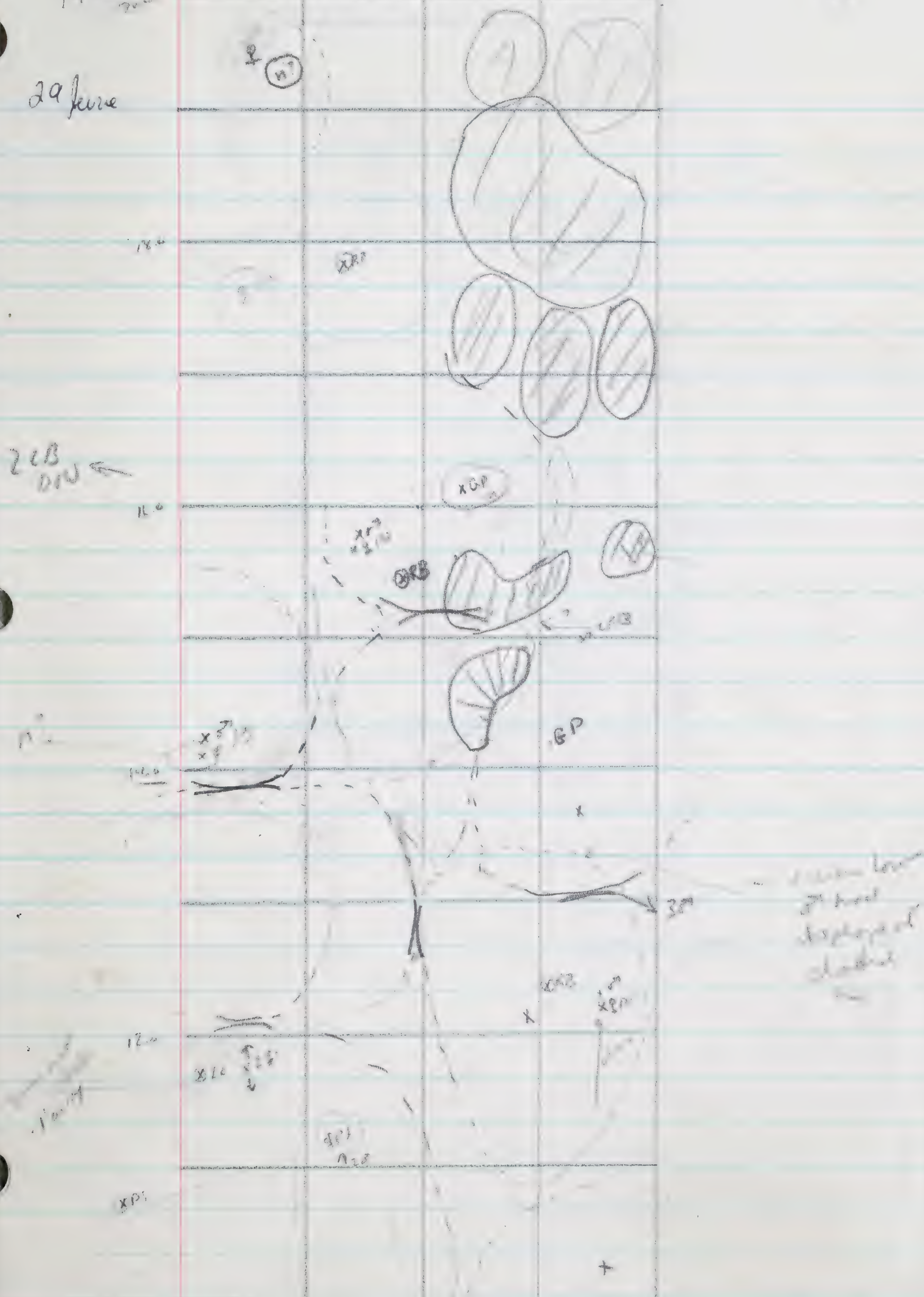
29 June

0900-1600



RT14
7462

29 June



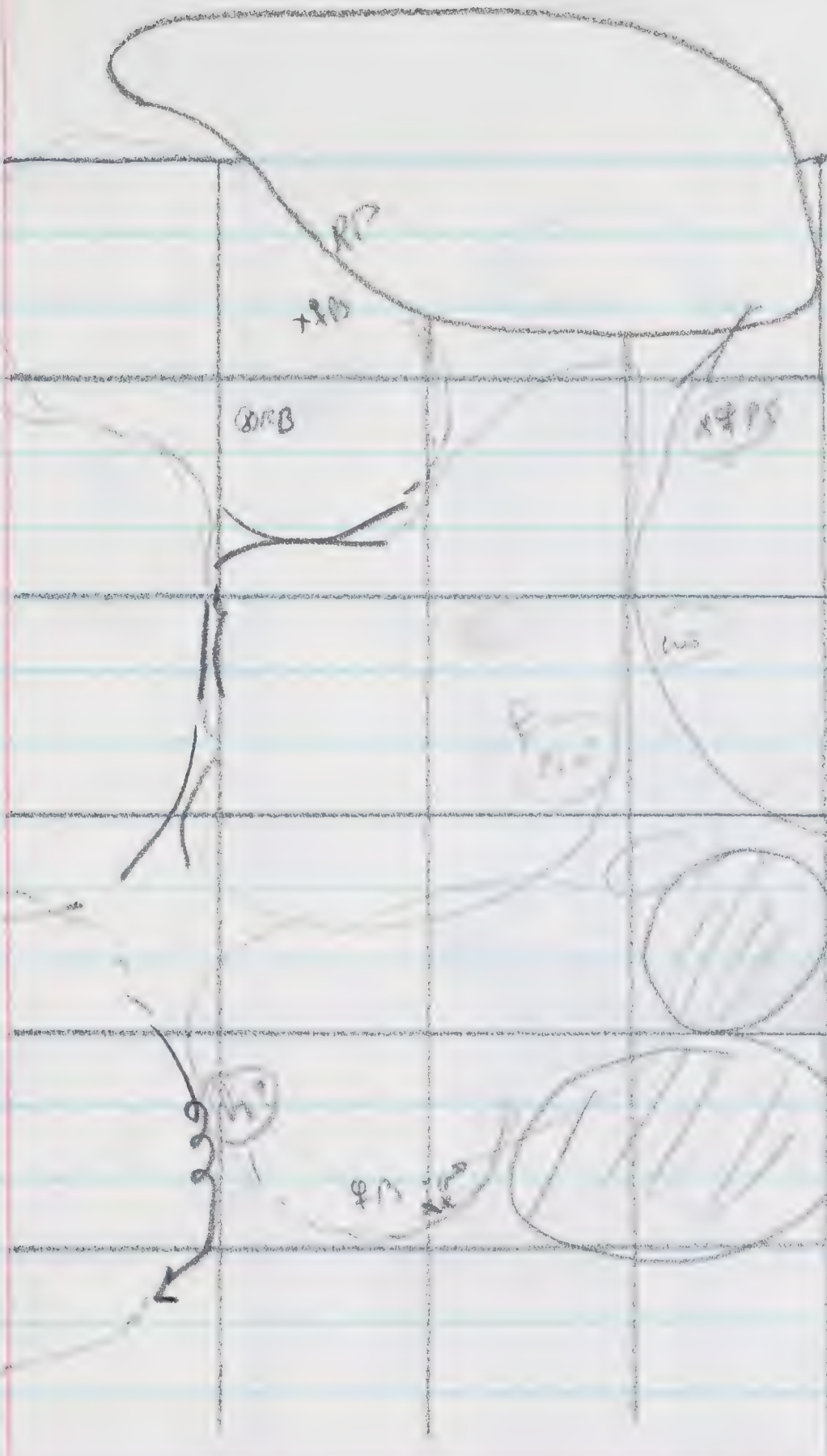
RNH
1963

29 June

25

23

21



7

0930 - 1530

XeOPS still active in resp. row.



RT74
1963

10.0

3 July

1964

8.0
+800
4E

4E

4E

4E

4E

X

RT74

X

4E

4E

4E

6.0

4E

4E

4E

4.0

4E

4E

4E

2.0

6.0

4E

4E

4E

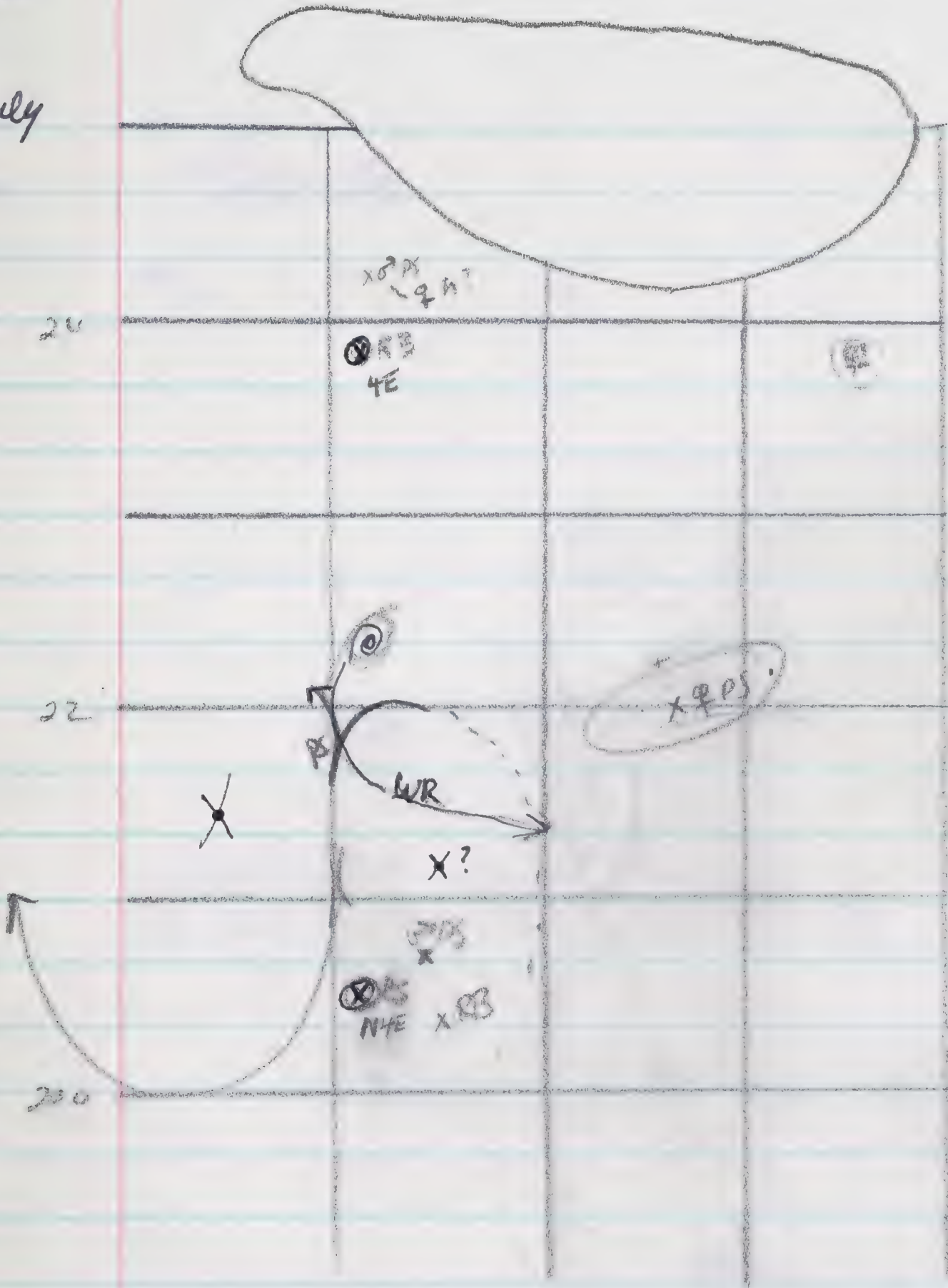
4E

4E

RTH
1963

3

3 July



Holmes
1963

7 July

0900-1605

→ 40 → PS

48
24

RB
4E

RP
2 dead - moved
chick under egg

PS
4 eggs

35

GP
4E

RB
4E

+ PS
4E

PS
31-1E

LL
empty

RB
gone
1 sterile egg

RT
4E

LL
5Y

PS
empty

PS
4E

10
PS

not
certain 12:00
impatient
- it still
suffer



of 10000

100

11
or
young

Rnk
1463
7 July

11.0

⊗ RP
4E

♀

16.0

⊗ RP
4E

⊗ RB
1 shot. PM
- NY

21.0
↑

7.23

+ ⊗ PS
4E

14.0

⊗ AS
4E

⊗ PS

x RB

⊗ PS

12.0

♀

⊗ RB
empty
⊗ PS
empty
act
nearly

⊗ PS
4E

RTH

1963

7 July

24.0

⊗ RB
empty

10

22.0

2 RT

150

20.0

⊗ PS
4 E
1 broken to
handily

1924


12/20/91

46

2. 1. 1.

GP 4295

2015



OB
YE

(X) 10

Feb
24/85

7 PS
4/2

⑧ 25
46

② 4

⊗ RB
empty

20

④ 45

QPS

1992

20

4

+

YEP
46

2
1
2

Q
+

1/11

⊗ GP
4E

150

311
24

⊗ 13
4E

⊗ 13
4E

5104
40PS

⊗

⊗ 13
4E

⊗

⊗

⊗ 13
4E

Holmes
1963

9 July



100

2000

157

15

19

52

800 7

② 2-2

BRB



[Faint handwritten notes]

④



2.

13 July

13

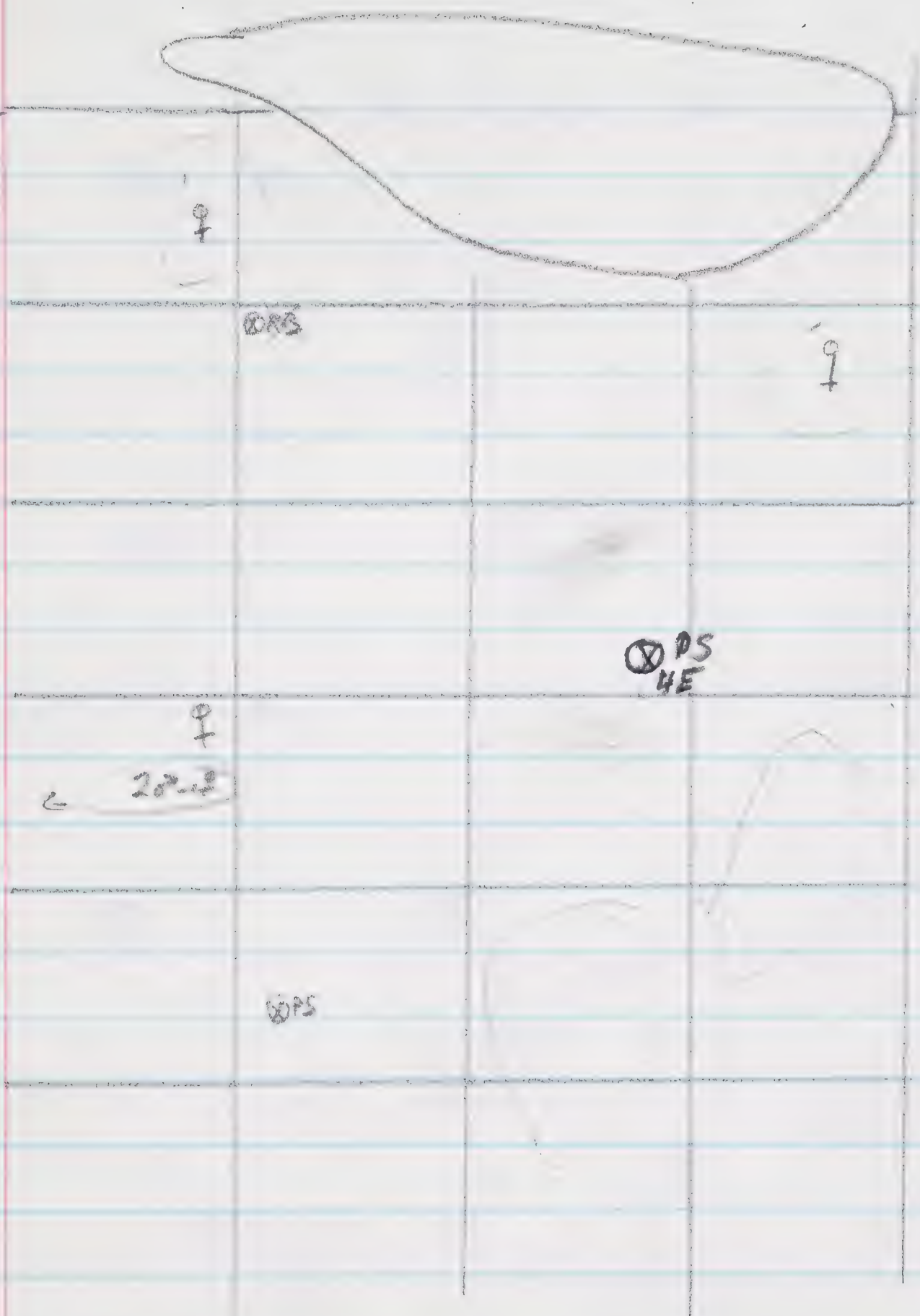
2011

75

N².

Holmes, R.
1963

13 July

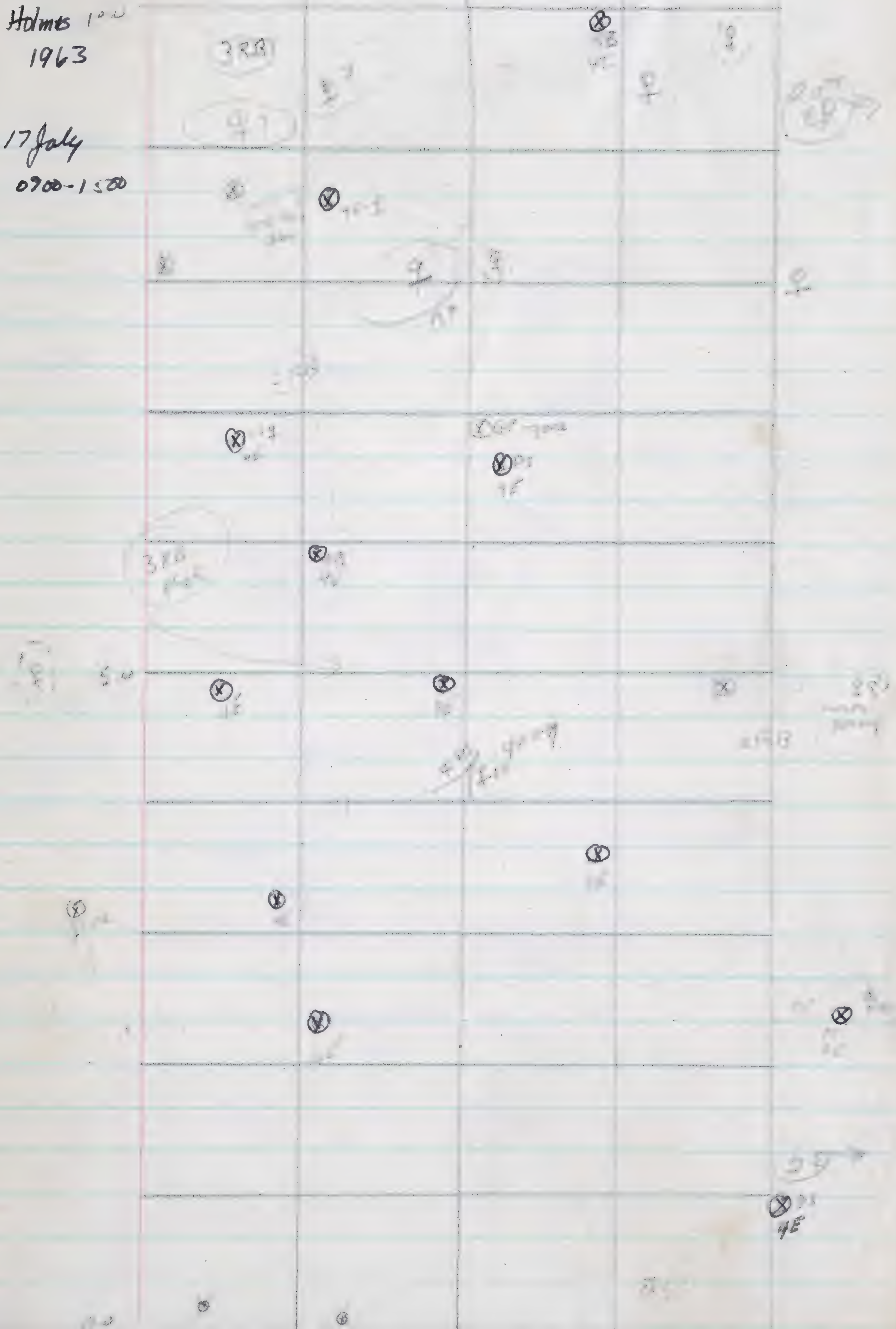


Holmes 100

1963

17 July

0700-1500



200

11.11
2.11.11
5

4

11.11.11

804

11.11

11.11.11

11.11

11.11.11

11.11.11

11.11

11.11.11

11.11.11

11.11.11

11.11.11

11.11.11

11.11.11

11.11.11

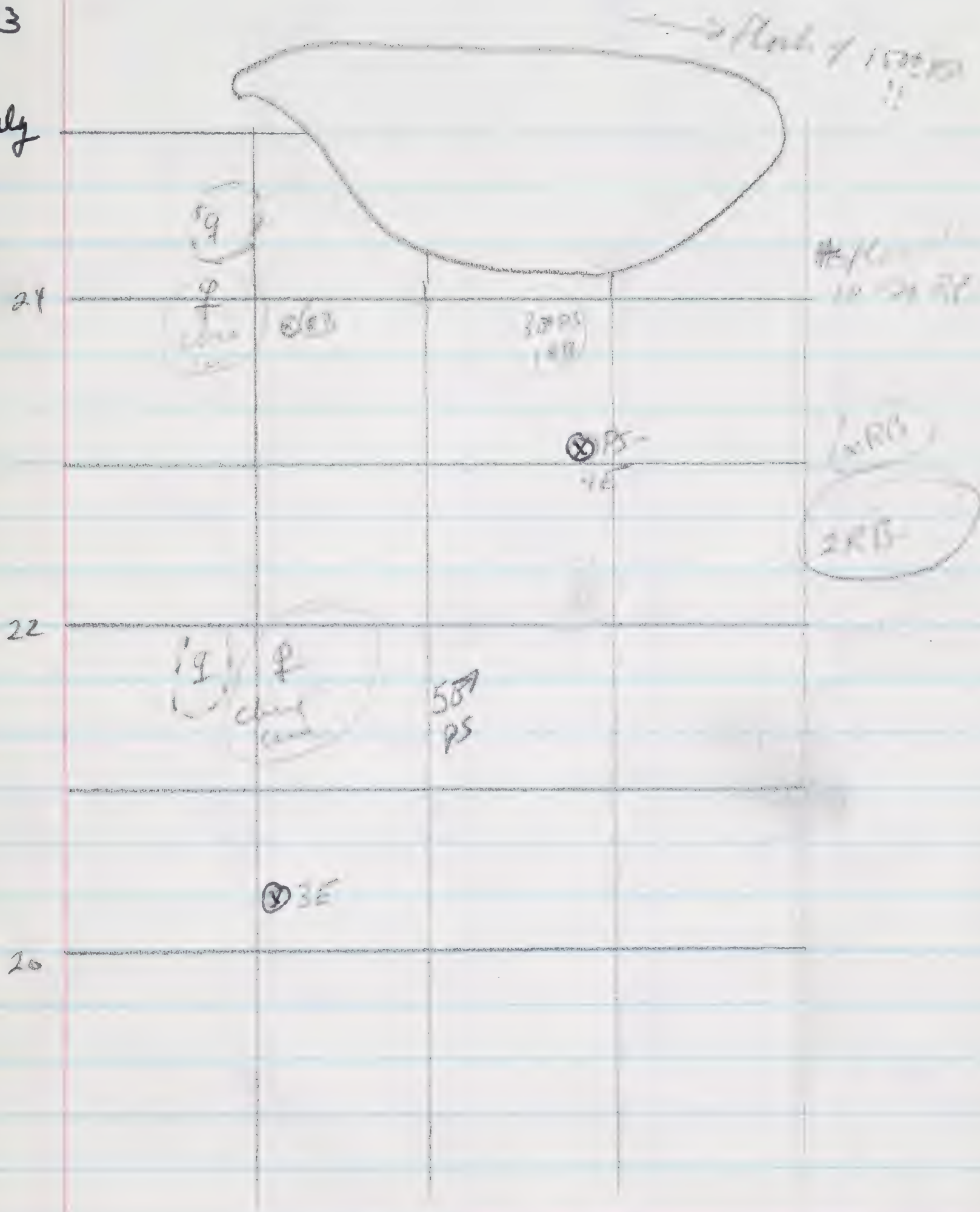
11.11.11

11.11.11

11.11.11

Holmes,
1963

17 July



Holme 1963 10.0

20 July
1000-1530



211

9

0.125-1.25

♀

9.125

14

13

102

21-25

20
21-25
5

11

12

7

41-45

#44

34-5

3

60

1.4

RTH
1963

20 July

250

607

10

230

⑤ PS-M HUS
HE-9

15'

⑥

24
207

RA?

⑤ PS
HE

210

⑤ with
chud

207

200

⑤ 2495-9

7

RTH
1963

10.0

23 July

1000-1400

5.0

14.50

0.0



♀

♀

20.0

chess

school
car

19.

chess
coll

2.

20.1905

15.0

200
P.R.
20

⊗

19.

30.

⊗
⊗

48
23

212

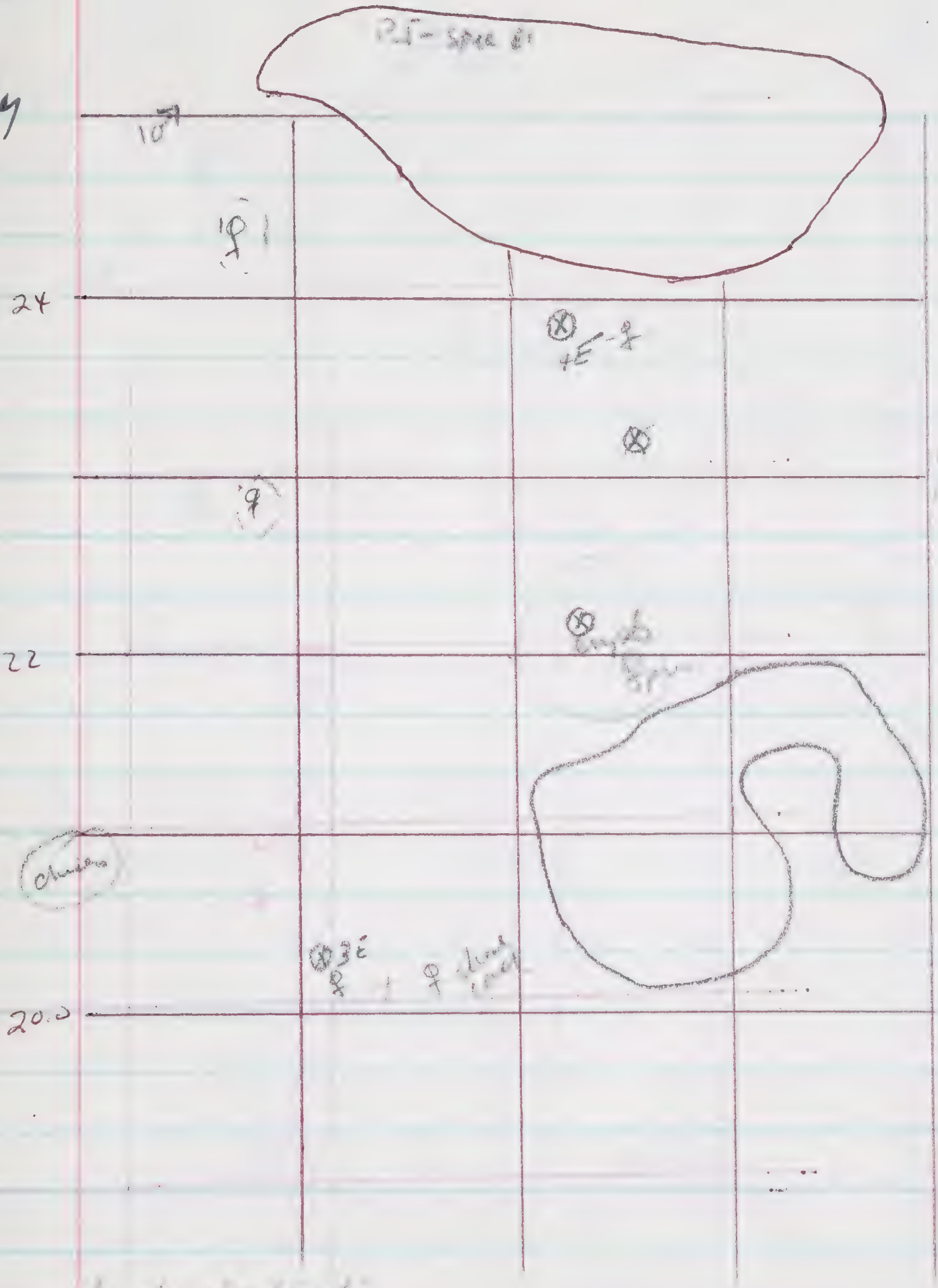
213

⊗

29
mdd
P
chess
coll

RTH
1963

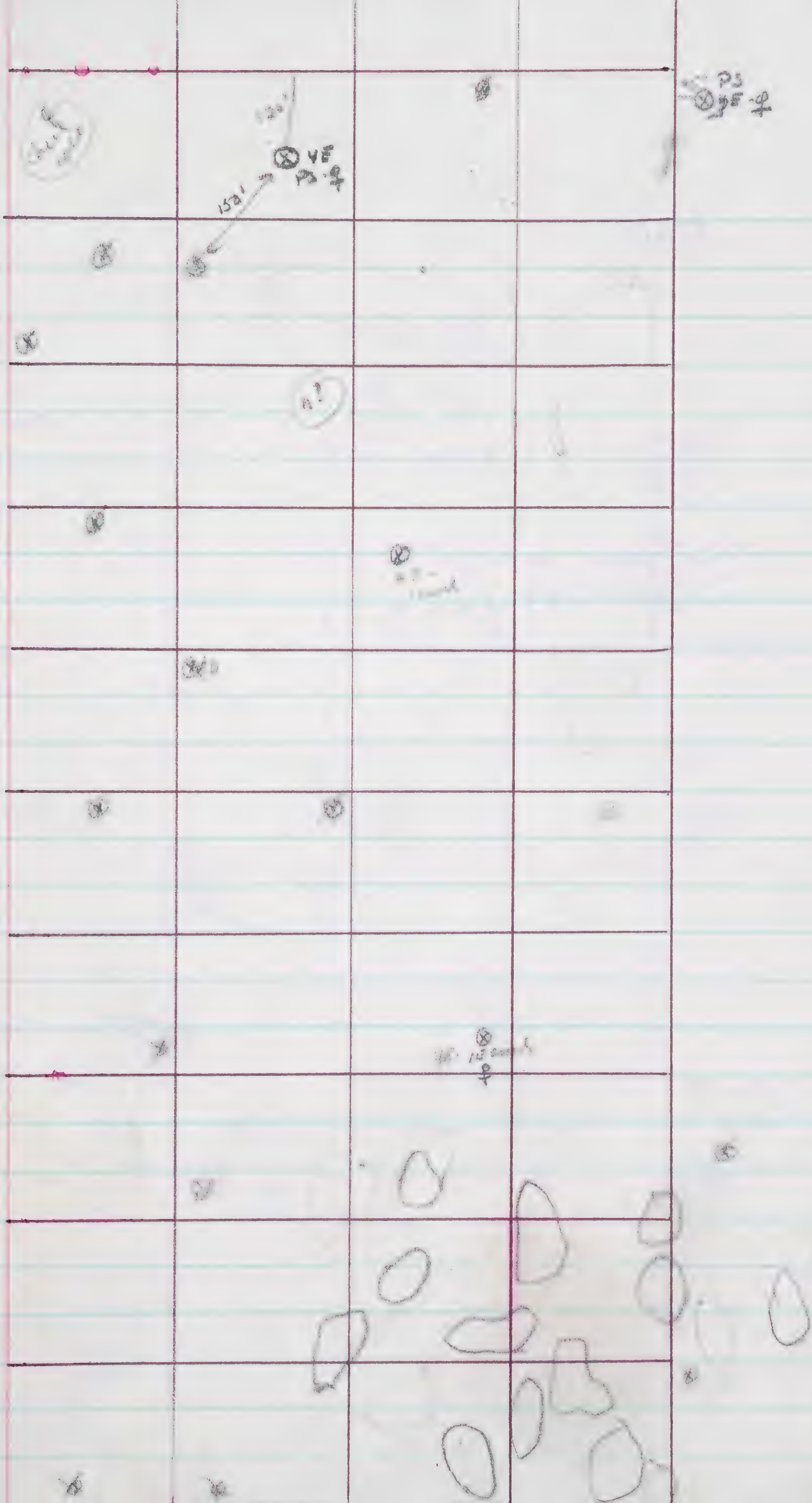
23 July



Holmes, R.
1963

25 June
0830-1130

98



Start
64PS

8-2-10

38

14RP
2005
28PS

39PS
1500

Handwritten scribble

8

4RB
2005

50-
200

39PS

80

8

Handwritten scribble

Handwritten scribble

8

38

Holmes, R.
1963

25 June

21

← LTI

(f)

③

TE-
1000

(g)

22

⊗

2000

2000

→ 6 RP

31500
6000

⊗

③

1000

20

16

Holmes R. O.
1963

28 July

0900-1100

⊗ zone

4E
cold
water

⊗ zone

5

⊗ 11E
st. water

4

20

178

1

15

X

X

BRB

(S)

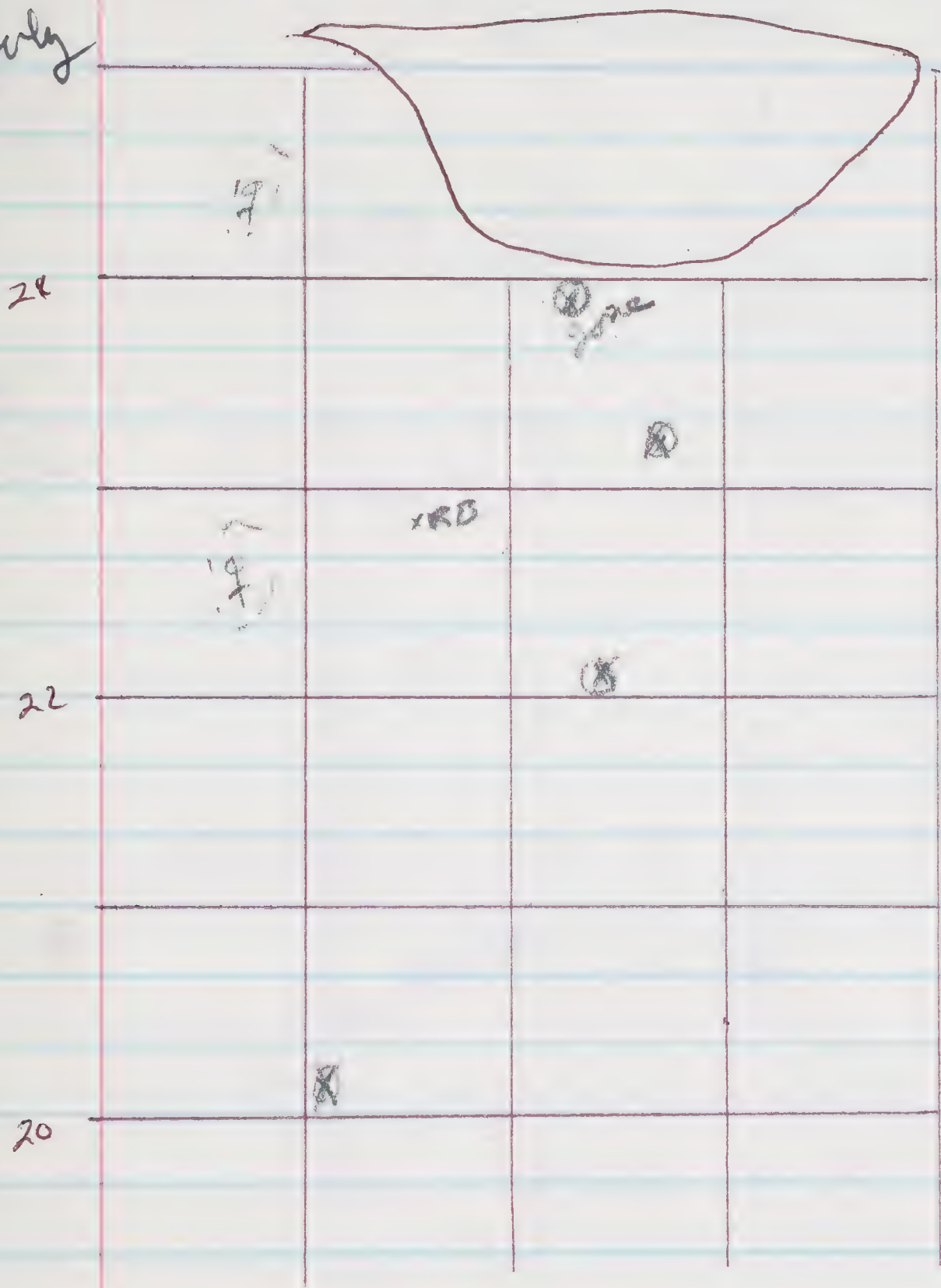
20

236-2

20

Holmes
1963

28 July



Holmes
1963

6 Aug

② dead chick (1st) - 1st egg - dead

→ 3 IPS (1st 3rd)

PS →

→ 1 RBM

39
S. E. ...
Per.

2499

① PS-1000

Holmes
1963

6 Aug



R. Holmes

1964

Alaska

Journal

1964: Alaska: Barrow

R. Holmes

1964

Alaska

Journal

1964: Alaska: Barrow

Holmes, R.
1964

Journal

3 June Fairbanks - Barrow, Alaska

Arrived ARC at 1630. From air, approx. 80% tundra is snow-covered. Weather overcast - light westerly wind - temp ~ 30-35°. Clothes-drying not possible too late in the day! - so will have to wait til tomorrow before going afield. At Erickson, Alaska Dept Fish & Game arrived with Martin Perkins, Director Bar St. Life Zoo - after Polar Bear!!

4 June - Set up new lab & talked with Brewster in the morning.

After lunch, ¹²⁰⁰⁻¹⁴³⁰ walked through drum area to AACs - went to salt lagoon & back to camp. Area 30% bare - mostly patchy - but several large areas (80 x 50' ~). On these were found more birds, particularly Pectorals (4♂; 1♀; 1♂) & Redbacks (2-3?). Semi-pals & Birds were seen in 2's & 3's in the drum area; several pairs were near AACs. 2 G. Plover also near salt lagoon. 1 Snowy Owl - sitting in pty of drum near Traps 1X, + X, 1 + Short-eared Owl near AACs. 2 Ruddy Turnstone in drum area. Scattered - hunting Pomarine Jaegers between end of drum area & beach ridge. - Weather overcast, 10-15 mph SW. wind 1600-2830. - Drove to beach ridge - wobbledly - E. on lagoon - to within 100 yds of Cape pit. - Weather sunny - 15+ mph SW-W wind - cold. Several groups of Pectorals, 2 RB, 2 GP, 1 Wr-Sp. sev. Sh-e. Owls & Snowy Owl & 70m. - dozens Lemmings

RTH
1964

Journal

2.

4 June Barrow, Alaska

activity was fair - about 14 indiv. seen in the dunes - most were on the south slopes of Wohlseh's flag & in Central Marsh. - where also grass-digging sign was most evident.

In evening - high trip to UMY - but we were broke a track at the beginning / Capeate Road. Walked back in - + wrote notes for remainder of evening - snow flurries

5 June - 0800 - 1130. To the west - via Britten's & other areas.

Inspected plots, Rivali Ridge & Village Slough.

Weather overcast, cold NW wind - all puddles

still ice-covered at 1100. Jaegers scarce -

2 S.G., 1 Sh. Y. Owl. - but 1 evening sign -

UMH's bluff. - saw RB, PS, GP, RT + 2 Red Gulls -

seen. Very little display activity.

In afternoon - to BR - walked north end of Pitelka's

Plot (1 ♂ disp. PS at NE corner, 2 ♂ LL), saw

jaegers but fewer than yesterday, 1 local indiv

chased an Amer. Rough-legged Hawk which was

sitting on the mounds along the ridge. Saw PS

& RB along E/Son lagoon, north of Wohlseh's flag

Weather overcast - cold westerly wind.

Evening in lab. Weather bad - wind reaching gale force - snow flurries etc.

6 June 0800 - 1100. Walked beach ridge from 4 band to

garage. 1 BS, 2 RB (pair), 1 PS transient, saw 4 Pom Jaegers, LL, R.

Weather overcast - 5-10 mph. NW wind. Little disp. exc. RB.

Holmes, R.T.
1964

Journal

3

6 June Barrow, Alaska

1230-1430. Worked ~~in~~ Area - 1 RB, 1 BS, 2 SP. little activity. 1530-1730. - went to E. bluff south of wharf - some pectorals, 2 wh-r. - no display activity. Weather in afternoon sunny - but still with a cold west wind. No lemmings seen - but some patchy cuttings + scattered frozen no owls.

1900-2200 - British Area + ridge to south - 1 SP, 1 BS, 1 R.P. - RB disp. heard in distance - very few longspurs. - clear - but cold west (10-15 mph) wind. Pigeons (mostly King) flying to east.

7 June 0800-1100. No. end of South 2A. much in pectoral channel. 1 pr. RB, 2 wh-r., 1 BS - weather clear - but still a cold west wind. Several flocks of eiders - mostly King - moving east - also 4 wh-fr. Geese. 1300-1600 - No. Area - British Area - 1 FS disp., 1 wh-r. seen, 1 wh-r., 1 BS, 1 SP, 2 Sh-e Owl. Lemmings seen on John bluff + some in British Area - 1 seen. 1600-1730. - Down area. Saw BS + SP. - 1 Pintail. 2000-2130. - No. Beach Ridge - 3 wh-r. chasing, 1 SP, 1 BS - 1 RB nest with 1 egg - 1 Sh-e Owl. Weather clear, light SW wind.

With sunny weather today - the melt has accelerated + the difference on BR + C.M. between this morning + the evening was striking. By evening, the N. ridge was nearly snow-free - 100 yds wide - the mass heathland from

Holmes, R
1964

Journal

7 June Barrow, Alaska

white to brown within 12 hours. Water was flowing everywhere. At the rate the snow will be all gone. Fog set in by 2100. - cool breeze

8 June

0830-1130. No. B.R. - weather overcast, occas. sun. light easterly wind - generally cool. Bird activity poor - 1 RB display, 1 PS, 5 W-r, 1 Sh-e. Owl., sev. Pm. Jaegers. 1330-1600 - BR - no end of Pitelka's plot - photographed some PS ♂ - some chasing 1 PS, & RD obs. - 1 Sh-e. Owl. hunting - no snowies. 1330-1740 - AACR - 2 DS, 1 PS, 1 Y SP, 1 Sh-e. Owl. Weather in pm - partly sunny - overcast & occas. fog. cold east wind. Melt ~~not~~ not proceeding as rapidly today. Evening in lab.

9 June

Worked in lab + melted out poles + standards for try this afternoon. 1000-1200 - went to No. BR - but there was little bird activity - white rumps are common, however. Weather - overcast, cool (25-30°F) + windy (east - 10-15 mph) - snow flurries all morning. All parks + we tried lake (yesterday - ice - top open -) was covered over with ice at 1200. 1300-1600. BR, no. 1 Pitelka's plot - tried to lure in PS with penguin but didn't work - tried it with another ♂ at south end of BR + got slight reaction. Weather still cold - below 32° all day - snow flurries - east wind. Melt ponds & puddles still frozen at 1600. Maclean arrived in late afternoon.



Holmes, R.
1964

Journal

5.

9 June Barrow, Alaska

In evening - went to area south of Fred Lake (Imikpuk) + watched White-rumps. at least 3 + possibly 4 displaying ♂♂ in that area + the one on the south side of the ridge. One pair watched + photographed. Weather cold - $20^{\circ}\pm$ - east wind - all ponds frozen over + ice. Ponds cracked on the way out - were frozen $1\frac{1}{2}$ hours later on the return.

10 June 0800 - 1100 - MacLean + I went to Bead Ridge - White-rump very abundant; several PS + BS. Weather partly overcast - cold east wind (10-20 mph). 1330 - 1700 - weather clear, sunny, but still windy (10-15 mph). White-rumped Sandpipers appear to be the most common sandpiper on the tundra - found today around ARCS - also on east - all along north beach ridge - between b.r. + gasoline ridge + a gasoline ridge. 1 Band Sep. nest with 4 eggs near middle salt lagoon. 1930 - 2130. Voth Area + Voth bluff. Little bird activity - 2 ♂ PS displaying east of Lakeview Road - 1 WR, 1 BS - sev. PJ. Weather clear + windy early in evening; overcast with snowflurries by 2100.

11 June 0830 - 1030. Watched the area north of No. 13. R. -
Weather lousy - overcast, strong east wind (15-30 mph). Little activity - WR, BS, PS.

Helms
1964

Journal

6.

11 June Barrow, Alaska

1330-1600. Walked north half of Pitelka's plot - North beach ridge - display activity poor. Weather overcast 15-20 mph SE wind - light rain during late afternoon.

1930-2100. - Drum Area - sev. BS + SP; considerable display in these two species. Sev. old squares along Fuel Lake. Weather overcast - 10-15 mph wind.

12 June - 0830-1130. No. BR. - weather overcast but bright - light 6-8 mph northerly breeze. Bird activity not particularly good. - 1330-1630. - Quick trip to Gasline Ridge (sev. WR, BS) + then looked the north beach ridge near the gasline (-where new micrometeorology station is now situated). - again more WR, sev. PS, RB, BS. Weather - mostly clear + sunny - light 3-10 mph north wind - some low fog + light sheet in late afternoon. Pitelka arrived at 1630 - went to field (DR) at 2100-2200. Clear. Sev. WR chasing.

13 June 1000-1230 - No. Beach Ridge - Weather clear - sunny - 2-10 mph east wind. WR's common (1 nest found), BS, PS, RB. 1400-1700 - Drum Area - N. BR - AHCs WR - abundant weather same as a.m. 2000-2200 - North Area - weather same (cold!) Little activity - but PS activity was generally good. 1 S.O. Melt proceeding rapidly - tundra now 90% bare. 1st Ranunculus flower on beach ridge.

Holmes, R.T.
1964

Journal

14 June Barru, Alaska

0830-1230. Photographed PS on Pitelka's plot + then walked to north beach ridge. PS activity good, little WTR. 2 Buff-breasted Sdp. on No. B.R. near 4 drains. Weather clear. Light (5-10 mph) west wind. 1430-1730. - No B.R. - weather same, except wind 10-15 mph. Few more buff-br. - white-rumps not very active.

15 June 0815-1130. No B.R. mostly photographing buff-breasted Sdps - PS + watching WTR's. Weather same as yesterday - clear - sunny - windy (8-12 mph). 1430-1800. Went to gastric ridge - collected 2 pairs of WTR - little activity - worked polygons + polygons to south - 2 Buff br. - sev. RB (1 imm) + numerous ♂ + few ♀ PS. Weather about same; wind increase + speed. 2030-2230. Walked part of No. B.R. - with E.A.P. + Maclean - watched buff-breasts which were common.

16 June 0900-1200. - No. Beach Ridge - 1430-1800. No. on Pitelka's plot + North B.R. - morning spent observing buff-breasts + WTR - occas. PS. Weather clear - strong (15 mph) in a.m. - somewhat lower in afternoon. Tundra is now free of snow - except along the edge of central meadow in the shelter of the beach ridge + tundra still in some patches + polygon troughs.

Fog in late evening

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17 June Barrow, Alaska

0900-1230. - No. beach ridge - fog - variable thickness. Light NW wind (5-10 mph) - tried some tape recorder - but went over for string.

Duff-breast common - 2 new WR. nests.

1430-1800. - No. BR - little activity - weather same - light wind. - evening in lab.

18 June 0830-1200. : 1400-1800. - No. Beach Ridge. mostly east of Micromet. (= white-rump sector) - WR active - Nest one - but not near 4 barrels. -

Duff-breast noted. Weather - overcast, foggy, misty - some sun. - light (5-10 mph) wind.

2030-2330 - Gasline Ridge - weather, partly clear - windy.

19 June 0830-1200 - No. B.R. + DRUM Area. 1330-1730. -

Voth Area - Insect ridge + Gasline Ridge. Weather overcast - 5-15 mph "breeze". White-rump activity decreasing - group 1 pictures present. Evening in lab.

20 June 0930-1200 N.B.R. - mostly west of Gasline + to south. - pectoral + some buff-breast activity.

Weather - overcast - 10-15 mph - N-NE wind - cold.

In afternoon - dropped at No. end / Pitelka's Plot - walked to Micromet - little bust activity - weather same

No. Beach Ridge in morning evening - Buff breast activity increasing.

21 June Morning in lab. Afternoon with FAP on beach ridge + Gasline ridge - checking Duff-breasts - 1 nest

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21 June Barrow, Alaska

of this species on beach ridge - with 1 egg. In evening - Maclean & I went to the No. B.R. - to check on Buff-br. & WR. - weather overcast, cold east wind (5-15 mph).

22 June - 0500-0715 - No. B.R. - recorded WR + PS - light north-east wind - snow on ground & falling during early period but melting rapidly by 0700. 0900-1130. No. B.R. - camp. WR activity variable from area + area. Pectors are flocking in increasing numbers. Weather partially clear, only a light NE wind. In afternoon to micromet section of br + to south end of Pitelba's Plot. - weather clear - light NE breeze. In lab in the evening.

23 June - 0830-1200. No. Beach Ridge P. - Weather overcast 3-10 mph Northerly breeze - WR activity good - little Buff-br. activity. Shorebird display has decreased markedly in the last 2-3 days. 1500-1730. No. Beach Ridge - drum area. Evening in lab

24 June 0930-1230. No. B.R. Bird activity decreasing markedly - some PS + WR display but no BS or RB. Weather overcast - occas. drizzle, cold NW wind (5-15 mph). 1600-1800. Gasline Ridge - PS & Buff-br. - few White-rumps. - weather overcast. Evening in lab.

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25 June Barrow, Alaska

Mackin + I went to Ikroavik Lake 0830 - 1730. -
 Three Footprint (3 knots, plus 1 50-60 PS,
 sev. Phalaropes (1 Northern). - Census plot
 where sev. Buff-breasts, RB, OPS - were
 noted but activity was low. Several
 more BB were seen to the south along the
 same ridge - At south end of lake - 7+ PS of
 Solovs just nesting - sev. pairs of Brant -
 Scattered Arctic Terns. Snow Geese + Pomarine
 Jaegers see frequently. - Weather overcast -
 snow falling off & on all day long. Pond
 froze last night (even the larger ones) +
 remained frozen until late morning
 hours. Lemmings sign was generally
 good - most of it was the winters - little
 fresh activity.

26 June - 1000 - 1230 - No. BR - 1300 - 1800. Gasline + No. Reed
 Ridge. Bird activity lower than previous
 week - Weather overcast, wind 0-5 mph -
 NW. In evening to Pitelka's plot - several
 BB still displaying - Weather foggy, light
 mist. Little snow on ice. Recorded BB.

27 June 0500-0715 - No. BR - sandrecovery. Weather clear, no
 wind. 0930-1200 - No. BR - Gasline ridge.
 1500-1730 No. BR. Weather remained clear -
 but light NW wind blew during much of
 day. Bird activity low.

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27 June Barrow, Alaska

2100-2200 - still clear - but slight wind. -
little bird activity; 1 WR chase, sev. PS chase.
With this warm day - large numbers of Chironomid
Aeb were present on the tundra.

28 June Morning in lab. 1330-1700. No. B.R. Bird activity
low, especially pectorals. WR's only at beach &
beach ridge & near micromet. Weather clear - 5-10
mph NW wind. 2000-2200. Gasline & B.R. -
wind 5-10 mph - west. - Ad. Tipulated (-T. pala)

29 June 0930-1200. No. B.R. - several flocks of WR, very few
pectorals. 1400-1700. NBR - little activity. Weather
clear all day - 10-15 mph - westerly. Evening
Seminar by Dr. G. Dallas Hanna

30 June 1000-1200 - micromet sector & B.R. - little activity -
checked nests - saw 1 WR chase. 1400-1700. - P. lake
plot - collected sev. buff-breasts. Weather clear -
5-15 mph NE wind.

1 July 0930-1200. No. B.R. - micromet tundra. Weather -
partly cloudy & misty. 1430-1800. No. ad / saw
B.R. & N. B.R. Saw WR chase. - 1 f. lake
with clear - every thing is quiet - most of
PS have left - 1 host again heard today.
Weather same. Gave Seminar at ARL
This evening.

2 July 0930-1200 - No. B.R. - checked WR nests, - 1400 -
1600 - Gasline Ridge - little activity. Weather
Weather clear - light NE-NW wind - mids - 11059 ft.

8899 B-12

